

APPENDIX D

Section 106 of the NHPA

**FEDERAL HIGHWAY ADMINISTRATION'S
SECTION 4(F) COMPLIANCE REQUIREMENTS (for historic properties) AND
SECTION 106 FINDINGS AND DETERMINATIONS
AREA OF POTENTIAL EFFECT
ELIGIBILITY DETERMINATIONS
EFFECT FINDING
US 231 and Cline Avenue Intersection Improvement Project
Hanover and Center Townships, Lake County, Indiana
DES. NO.: 1700022**

**AREA OF POTENTIAL EFFECTS
(Pursuant to 36 CFR Section 800.4(a)(1))**

The Area of Potential Effects (APE) for this project is defined as a 181.5-acre (ac) area including and surrounding the proposed US 231 and Cline Avenue intersection. The APE includes the 15.3 ac area where construction activities will occur (the archaeological APE), as well as areas where visual, noise, or other effects caused by the project will occur outside of the construction footprint (the history/architecture APE). The APE's northern and southern boundaries extend beyond the construction footprint and follow the project's line of sight along Cline Ave. The eastern and western boundaries of the APE follow the project's line of sight along US 231, also extending beyond the construction footprint (Appendix A, Figure 2).

**ELIGIBILITY DETERMINATIONS
(Pursuant to 36 CFR 800.4(c)(2))**

One property within the APE is recommended eligible for the National Register of Historic Places (NRHP):

John Barman Farm (IHSSI No. 089-565-75008; 7808 West 109th Avenue). The John Barman Farm (IHSSI 089-565-75008) is recommended eligible for listing in the NRHP under Criteria A and C for agriculture and architecture for local significance. The Farm embodies the broad pattern of agricultural development of the area. It includes a circa 1843 timber-frame English threshing barn built in the early years of Euro-American settlement in Center Township, Lake County, Indiana. With this original English threshing barn, the property represents the importance of growing grain when the Midwest was known as the nation's "bread basket." It also represents the pattern of New England immigration to Indiana, which brought this barn type to the region. The English barn was repurposed during the late-nineteenth to early-twentieth century when the farm transitioned to dairy farming. The outbuildings constructed during the dairy farm period are typical of an early-twentieth century farm and collectively embody the distinctive characteristics of an early-twentieth century farm in this region. The John Barman Farm is one of the few remaining examples of a farm in Center Township, Lake County, where few farms remain due to suburbanization. Therefore, the John Barman Farm is significant under Criterion A and is recommended eligible for the NRHP.

The circa 1843 English threshing barn, also known as the horse barn, is an excellent example of a timber-frame mortise and tenon constructed barn. It embodies the distinctive characteristics of

the timber-frame mortise and tenon construction and represents the work of a master craftsman. It is a rare surviving example of an early timber-frame barn built during the early years of Euro-American settlement in Center Township, Lake County, Indiana. The English barn is significant under Criterion C and is recommended individually eligible for the NRHP.

EFFECT FINDING

- **John Barman Farm (IHSSI No. 089-565-75008; 7808 West 109th Avenue):** “No Adverse Effect”

INDOT, acting on FHWA’s behalf, has determined a “No Adverse Effect” finding is appropriate for this undertaking.

INDOT respectfully requests the Indiana State Historic Preservation Officer provide written concurrence with the Section 106 determination of effect.

SECTION 4(F) COMPLIANCE REQUIREMENTS (for historic properties)

John Barman Farm (IHSSI No. 089-565-75008; 7808 West 109th Avenue) - This undertaking will not convert property from the John Barman Farm (IHSSI No. 089-565-75008; 7808 West 109th Avenue), a Section 4(f) historic property, to a transportation use. INDOT, acting on FHWA’s behalf, has determined the appropriate Section 106 finding is “No Adverse Effect”; therefore, no Section 4(f) evaluation is required for the John Barman Farm (IHSSI No. 089-565-75008; 7808 West 109th Avenue).

Anuradha V. Kumar

Anuradha V. Kumar, for FHWA
Manager
INDOT Cultural Resources

06/03/2021

Approved Date

**FEDERAL HIGHWAY ADMINISTRATION
DOCUMENTATION OF SECTION 106 FINDING OF
“NO ADVERSE EFFECT”
SUBMITTED TO THE STATE HISTORIC PRESERVATION OFFICER
PURSUANT TO 36 CFR Section 800.5(c)
US 231 and Cline Avenue Intersection Improvement Project
Hanover and Center Townships, Lake County, Indiana
DES. NO.: 1700022**

1. DESCRIPTION OF THE UNDERTAKING

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA), proposes to proceed with the US 231 and Cline Avenue Intersection Improvement Project (Des. No. 1700022). The project is located in Hanover and Center townships, on the Saint John, Indiana 7.5' USGS Topographic Quadrangle, in Sections 2, 3, 10, and 11, Township 34 North, Range 9 West (Appendix A, Figure 1).

The project is needed because the existing intersection lacks turn lanes on the approaches, which leads to vehicle queue delays, left-turn crashes, and rear-end crashes. These single-lane approaches have shoulders that are used as passing blisters, which in turn causes confusion for opposing left-turning vehicles. The project purpose is to address the operation of the intersection and/or reduce the number of left-turn and rear-end crashes by minimizing the potential for crashes.

The project will consist of reconstructing the intersection as a roundabout and would eliminate the left-turn crashes since the roundabout would remove left turning movements. This would also decrease the amount of rear-end crashes with the reduction of vehicle-queue lengths (delays), and with improved markings and signage required in advance of the roundabout. The current design includes a two-lane roundabout, resulting in a reduction of vehicle-queue lengths on US 231 from approximately 280 feet to 170 feet for east-bound traffic and from approximately 230 feet to 75 feet for west-bound traffic. The project is expected to require approximately 10.4 acres of permanent right-of-way. This includes re-acquisition of existing right-of-way in non-platted areas.

The Area of Potential Effects (APE) for this project is defined as a 181.5-acre (ac) area including and surrounding the proposed US 231 and Cline Avenue intersection. The APE includes the 15.3 ac area where construction activities will occur (the archaeological APE), as well as areas where visual, noise, or other effects caused by the project will occur outside of the construction footprint (the history/architecture APE). The APE's northern and southern boundaries extend beyond the construction footprint and follow the project's line of sight along Cline Ave. The eastern and western boundaries of the APE follow the project's line of sight along US 231, also extending beyond the construction footprint (Appendix A, Figure 2).

2. EFFORTS TO IDENTIFY HISTORIC PROPERTIES

A literature search reviewed all pertinent cultural resources data and included a review of the National Register of Historic Places (NRHP), the National Historic Landmarks Listings, the Indiana Register of Historic Sites and Structures, the Indiana State Historic Architectural and Archaeological Research Database (SHAARD), the Indiana Historic Sites and Structures Inventory (IHSSI/ State Register), the *Lake County Interim Report*, and the INDOT-sponsored *Indiana Historic Bridge Inventory*.

The literature search revealed one resource listed in the IHSSI within the APE, the John Barman Farm (IHSSI No. 089-565-75008; 7808 West 109th Avenue). The IHSSI identifies the John Barman Farm (IHSSI No. 089-565-75008; 7808 West 109th Avenue) as a “Contributing” resource. The John Barman Farm is also listed as a “Hoosier Homestead” by the Indiana State Department of Agriculture (ISDA). The program confers this status upon family farms that have been in single-family ownership/production for at least 100 consecutive years.

Consulting parties for this project were invited through the distribution of an Early Coordination letter (ECL) on July 19, 2019. The ECL was distributed to consulting parties through the Indiana Section 106 Consultation and Outreach Portal Enterprise (IN SCOPE: <http://erms.indot.in.gov/Section106Documents/>), with the exception of the Indiana State Historic Preservation Officer (SHPO), who received a hard copy of the ECL. Entities that accepted consulting party status are indicated in bold.

- **Indiana State Historic Preservation Officer**
- Northwestern Indiana Regional Planning Commission,
- **Indiana Landmarks Northwest Field Office,**
- Northwestern Indiana Genealogical Society,
- Lake County Surveyor,
- Lake County Historian,
- Lake County Commissioners,
- Lake County Highway Superintendent,
- Lake County Engineer,
- South Lake County Agricultural Historical Society,
- Lake County Genealogical Society,
- Eastern Shawnee Tribe of Oklahoma,
- Forest County Potawatomi Community,
- Miami Tribe of Oklahoma,
- Peoria Tribe of Indians of Oklahoma,
- **Pokagon Band of Potawatomi Indians.**

The Indiana State Historic Preservation Office (IN SHPO) responded to the ECL in a letter dated August 16, 2019 and stated that they were not aware of any other parties to be invited to participate in the Section 106 process for the project.

Indiana Landmarks responded to the ECL by letter on July 19, 2019. They requested a closer evaluation of the John Barman Farm (IHSSI 089-565-75008) and an assessment of how the proposed project would impact this resource, given its status as an IHSSI-rated “Contributing” resource and a Hoosier Homestead. As a response to these concerns, a full evaluation of the John

Barman Farm was completed within the text of the HPR, even though the property has a “Contributing” rating.

The Pokagon Band of Potawatomi responded by letter dated July 26, 2019 and indicated that no historic properties significant to the Pokagon Band of Potawatomi Indians are located in the APE but requested to be contacted if any archaeological resources are uncovered as a result of the project.

A Historic Property Report (HPR) was completed to identify existing and unknown above-ground resources within the APE (Lengel and Thursby 2020). The HPR was prepared by a professional architectural historian from Cardno, who meets the Secretary of the Interior’s Professional Qualifications as per 36 CFR Part 61. The HPR included a review of the IHSSI via the *Lake County Interim Report* and the Indiana Historic Buildings, Bridges, and Cemeteries Map (IHBBCM) for above-ground resources within the APE, as well as a reconnaissance level survey to document buildings within the APE constructed through 1970. As a result of the reconnaissance investigation, five above-ground resources were documented within the APE, including a re-evaluation of the John Barman Farm (IHSSI #089-565-75008). None of the identified resources were recommended for listing in the NRHP. This report was submitted to the INDOT-Cultural Resources Office (INDOT-CRO) for their review and approval. INDOT-CRO approved the HPR on April 23, 2020. A copy of the HPR report abstract and conclusions is included in Appendix B.

With regard to archaeological resources, a Phase Ia Archaeological Records Review and Reconnaissance (Phase Ia) was conducted in June 2019 to identify existing and unknown archaeological resources within the archaeological APE (Grob, Okray, and Parsell 2020). The Phase Ia was completed by archaeologists who meet the Secretary of the Interior’s Professional Qualifications as per 36 CFR Part 61, and included a combination of shovel testing and pedestrian survey across the entire proposed construction footprint, an area measuring 15.3 ac. The Phase Ia identified two archaeological sites within the project area, 12-La-0727 and 12-La-0728. These sites both consist of historic scatters, which were recommended ineligible for the NRHP. The Phase Ia Report was submitted to the INDOT-CRO for review and approval. INDOT-CRO approved the Phase Ia Report findings on February 17, 2020. A copy of the Phase Ia Report abstract and conclusions is included in Appendix B.

Following the distribution of the ECL, the HPR and Phase Ia report (tribes only) were distributed to the entities who accepted consulting party status on April 30, 2020 and May 1, 2020.

By letter dated June 8, 2020, IN SHPO concurred with the results of the Phase Ia investigation. They further indicated that the APE “appears to be of appropriate size to encompass the geographic area in which this project could cause effects”. Regarding the HPR, the IN SHPO stated that “Given the integrity issues raised in the HPR about the John Barman Farmstead, we are inclined to agree with the evaluation of the John Barman Farmstead as not being eligible for the NRHP. However, given how close the proposed right-of-way would come to the front of the house, if another consulting party were to question the HPR’s conclusion that the farmstead is not NRHP-eligible, we think that further consideration on the farmstead’s potential eligibility would be warranted.”

On June 10, 2020, the Indiana Landmarks Northwest Field Office responded by letter and stated that "...the individual eligibility of the farmhouse should not prohibit consideration of the eligibility of the farmstead as a collective resource. In addition to the 1840s farmhouse with an early 20th century addition, the HPR acknowledges the presence of numerous outbuildings: horse barn (1850), two barns (circa 1900), a milk house (1916), a silo (1900), a garage (1959), a corn crib (1900), and a hog house (1916). It is not completely clear the HPR assesses the site's eligibility as it evolved into a dairy farm in the early 20th century and one that retains a majority of the associated outbuildings in addition to the farmhouse. Given this information, I would encourage further consultation on the property's eligibility, especially given the certain impact of an expanded right-of-way at the front of the property."

Given the comments provided by consulting parties regarding the John Barman Farm (IHSSI No. 089-565-75008), additional analysis of the farm was completed by a Cardno architectural historian, who meets the Secretary of the Interior's Professional Qualification Standards, through the preparation of an Interim Effects Letter, which was distributed to consulting parties on February 19, 2021. Mr. Donald Barman, owner of the John Barman Farm, was invited to participate in the project as a consulting party with the distribution of the Interim Effects Letter; he accepted consulting party status on March 8, 2021.

As a result of this additional evaluation, the John Barman Farm (IHSSI 089-565-75008) was found to retain integrity of location and setting, since it remains in its original location and is still an active farm. It possesses the feeling and association of a farm from the early Euro-American settlement period and the early twentieth century farming period. The major outbuildings (English barn, cow barn, hog house, corn crib / granary, and milk house) retain the integrity of design, materials, and workmanship and are recommended as contributing resources. In addition, the circa 1843 English barn, also known as the horse barn, is an excellent example of a timber-frame mortise and tenon constructed barn. It embodies the distinctive characteristics of the timber-frame mortise and tenon construction and represents the work of a master craftsman. As a result, the John Barman Farm (IHSSI No. 089-565-75008) was found to be eligible for listing in the NRHP under Criteria A and C for agriculture and architecture for local significance.

No other responses were received from consulting parties regarding the identification of historic properties in the APE. Copies of correspondence from consulting parties is included in Appendix C.

3. DESCRIBE AFFECTED HISTORIC PROPERTIES

John Barman Farm (IHSSI No. 089-565-75008; 7808 West 109th Avenue) - The John Barman Farm (IHSSI 089-565-75008) is recommended eligible for listing in the NRHP under Criteria A and C for agriculture and architecture for local significance. The Farm embodies the broad pattern of agricultural development of the area. It includes a circa 1843 timber-frame English threshing barn built in the early years of Euro-American settlement in Center Township, Lake County, Indiana. With this original English threshing barn, the property represents the importance of growing grain when the Midwest was known as the nation's "bread basket." It also represents the pattern of New England immigration to Indiana, which brought this barn type to the region. The English barn was repurposed during the late-nineteenth to early-twentieth

century when the farm transitioned to dairy farming. The outbuildings constructed during the dairy farm period are typical of an early-twentieth century farm and collectively embody the distinctive characteristics of an early-twentieth century farm in this region. The John Barman Farm is one of the few remaining examples of a farm in Center Township, Lake County, where few farms remain due to suburbanization. Therefore, the John Barman Farm is significant under Criterion A and is recommended eligible for the NRHP.

The circa 1843 English threshing barn, also known as the horse barn, is an excellent example of a timber-frame mortise and tenon constructed barn. It embodies the distinctive characteristics of the timber-frame mortise and tenon construction and represents the work of a master craftsman. It is a rare surviving example of an early timber-frame barn built during the early years of Euro-American settlement in Center Township, Lake County, Indiana. The English barn is significant under Criterion C and is recommended individually eligible for the NRHP.

4. DESCRIBE THE UNDERTAKING'S EFFECTS ON HISTORIC PROPERTIES

John Barman Farm (IHSSI No. 089-565-75008; 7808 West 109th Avenue) - Following the recommendation of the John Barman Farm as eligible for the NRHP, portions of the proposed roundabout have been redesigned to avoid adversely affecting the property. The scope of work along and near the westbound travel lane adjacent to the property has been modified such that right-of-way acquisition will not occur from within the NRHP boundary. The original (2018) scope of work accounted for full-depth roadway reconstruction while maintaining the same alignment for the northern roadway shoulder. Also included was side-slope grading work to achieve proper tie-ins. The new (2021) scope now includes only asphalt resurfacing for the westbound travel lanes along the road frontage of the Barman Farm NRHP boundary, which will eliminate the need for any grading revisions within this area. An existing utility corridor along with existing utility easements is also currently present along the road frontage of the Barman property; however, no utilities within the NRHP boundary will require relocation as a result of the current project.

No new signage or lighting will be placed within the Barman Farm NRHP boundaries. The nearest proposed light fixture will be located approximately 125 feet west of the NRHP boundary. The nearest signs will be located approximately 50 feet to the east and west of the NRHP boundary. While the newly proposed lighting and signage will be visible both to and from the Barman Farm, there is existing infrastructure and signage in and around the Barman Farm that is currently creating the same types of visual effects to the property. The existing utility poles and signage already located in and around the Barman Farm creates an intrusion to the setting, feeling, and association of the property such that any new lighting or signage introduced by the project will not result in any additional, negative visual impact.

5. EXPLAIN APPLICATION OF CRITERIA OF ADVERSE EFFECT -- INCLUDE CONDITIONS OR FUTURE ACTIONS TO AVOID, MINIMIZE OR MITIGATE ADVERSE EFFECTS

According to 36 CFR 800.5(a)(1), "An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for

inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling or association.”

John Barman Farm (IHSSI No. 089-565-75008; 7808 West 109th Avenue) - Per 36 CFR 800.5(a)(1), the criteria of adverse effect do not apply. As a result, a finding of “No Adverse Effect” is appropriate for this project, because it will not alter the characteristics for which the John Barman Farm (IHSSI No. 089-565-75008; 7808 West 109th Avenue) is eligible for the NRHP. Application of the criteria of adverse effect defined in 36 CFR § 800.5(a)(2), finds the proposed project's potential effects to the John Barman Farm (IHSSI No. 089-565-75008; 7808 West 109th Avenue) as follows:

Per 800.5(a)(2)(i): “Physical destruction of or damage to all or part of the property” will not occur. The project will not directly affect the John Barman Farm. No new right-of-way will be required.

Per 36 CFR 800.5(a)(2)(ii): the “Alteration of a property, including restoration, rehabilitation, repair, maintenance stabilization, hazardous material remediation and provision of handicapped access, that is not consistent with the Secretary's Standards for the Treatment of Historic Properties and/or other applicable guidelines” will not occur. The project will have no direct impact to the John Barman Farm.

Per 36 CFR 800.5(a)(2)(iii): the “Removal of the property from its historic location” will not occur.

Per 36 CFR 800.5(a)(2)(iv): a “Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance” will not occur. The project will not cause a change of character to any of the John Barman Farm's features.

Per 36 CFR 800.5(a)(2)(v): the “Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features” will not occur. Although there may be visual and audible changes to the John Barman Farm during construction, these will be temporary and limited to the duration of construction.

Per 36 CFR 800.5(a)(2)(vi): “Neglect of a property which causes its deterioration...” will not occur as a result of the project. The undertaking will not cause deterioration of any aspect of the John Barman Farm.

Per 36 CFR 800.5(a)(2)(vii): the “Transfer, lease, or sale of property out of Federal ownership or control...” will not occur. Ownership of the John Barman Farm will not change as a result of this project.

No permanent, physical changes to the Barman Farm would occur as a result of the project. The roadway that fronts the NRHP boundary of the Barman Farm would remain in its current state. Asphalt milling and resurfacing, as opposed to a full-depth pavement replacement, will occur along the west-bound lane in order to avoid acquiring right-of-way from within the NRHP

boundaries of the property. Changes in noise and traffic pattern will occur during construction; however, these effects would be temporary. The proposed roundabout will be constructed west of the existing intersection, and while the roundabout will result in changes to traffic flow at the intersection, these changes will allow for a steadier and even flow of traffic with shorter vehicle queue lengths than exist currently. Reducing queue lengths will help prevent traffic build-up in front of the John Barman Farm property.

Additional lighting for the new roundabout is anticipated; however, it will be focused on the entrances and center of the roundabout. The closest light to be installed as a result of the project will be located approximately 125 feet west of the western edge of the NRHP boundary for the Barman Farm. Similarly, signage will be installed on the approach to the roundabout in order to direct traffic. The closest roundabout signs to the Barman Farm will be approximately 50 feet east and west of the NRHP property boundaries. There are currently existing signs of similar size and scale present around the property. The newly proposed lighting and signage around the Barman Farm will not create any greater intrusion to the property's setting, feeling, and association than what is already occurring through the presence of existing utility poles and signage in and around the Farm. In addition, a tree line present along the west side of the property will help minimize the viewshed to the project area.

In addition, the Barman Farm's rural setting is currently being impacted by suburban development to the west and northwest of the property. A large, residential subdivision is in the process of being constructed on the northwest side of the US 231 and Cline Avenue intersection, within the viewshed of the Barman Farm, affecting its rural setting.

6. SUMMARY OF CONSULTING PARTIES AND PUBLIC VIEWS

Consulting parties for this project were invited through the distribution of an ECL on July 19, 2019. The ECL was distributed to the consulting parties listed above through the Indiana Section 106 Consultation and Outreach Portal Enterprise (IN SCOPE: <http://erms.indot.in.gov/Section106Documents/>), with the exception of the Indiana State Historic Preservation Officer (SHPO), who received a hard copy of the ECL.

The IN SHPO, who is always considered a consulting party, was also consulted regarding the list of consulting parties invited to participate in the Section 106 process. The IN SHPO concurred with the list of invited consulting parties in a letter dated August 16, 2019. The IN SHPO also stated they were not aware of any other parties to be invited to participate in the Section 106 process for the project.

In response to the ECL, Indiana Landmarks and the Pokagon Band of Potawatomi were the only other consulting parties to accept consulting party status for the project. A summary of their comments regarding the ECL is included in Section 2.

The HPR was distributed to consulting parties via IN SCOPE on April 30, 2020 and May 1, 2020. As indicated in Section 2, Indiana Landmarks and the IN SHPO requested a re-evaluation of the John Barman Farm for NRHP eligibility in response to the conclusion of the HPR that the John Barman Farm was not eligible for the NRHP.

Re-evaluation of the John Barman Farm occurred through the distribution of an Interim Effects Letter, which was disseminated to consulting parties through IN SCOPE on February 19, 2021. As a result of the additional investigations completed for the John Barman Farm, it has been found eligible for the NRHP. This information, along with the preliminary finding of “No Adverse Effect” for the project, was included in the Interim Effects Letter. Mr. Donald Barman, owner of the John Barman Farm, was invited to participate in the project as a consulting party with the distribution of the Interim Effects Letter.

Following distribution of the Interim Effects Letter, on March 8, 2021, Indiana Landmarks provided a letter stating “I am pleased to see additional analysis was conducted on the John Barman Farm that determined National Register of Historic Places (NRHP) eligibility. I was also pleasantly surprised to learn about the history of the c. 1843 English barn and its individual eligibility for listing to the NRHP under Criterion C.” They further concurred with the preliminary “No Adverse Effect” finding for the project, given the redesign of the project to avoid impacting the John Barman Farm.

Also on March 8, 2021, Mr. Donald Barman called Veronica Parsell of Cardno to accept consulting party status for the project. He requested that he and his son, Leonard Barman, stay informed on the project as it moves forward. He also provided some additional context/background to the information included in the Interim Effects Letter:

- He indicated that the Reeder Farm, which we used as a comparative property, was owned by his aunt and uncle (his dad’s sister owned the Reeder Farm).
- No one in his family was aware of Sophia, one of the daughters of John and Catherine Barman. Mr. Barman assumes she died as a child. He was appreciative to learn about Sophia.
- Mr. Barman indicated that Frank Barman gave each kid 40 acres of agricultural land and 10 acres of woods when they grew up. Mr. Barman still owns the 10 acres of woods that Frank gave to him.
- Finally, Mr. Barman indicated that John Barman arrived in 1852 and purchased 400 acres, including the farmstead, for \$1600.

Mr. Barman did not have any specific comments about the effects of the project to his property. His one concern regarding the project is about drainage. He indicated both that he wants to know about the drainage plans for the project, and that it is his biggest concern for the project. He mentioned that in 2008, there was work done for potential turn lanes at the project intersection. Mr. Barman would like the drainage plans that were worked out in 2008 for the turn lane project to be followed for this project. This information was relayed to the project’s engineering firm via email on March 8, 2021.

The IN SHPO responded with comments to the Interim Effects Letter on March 15, 2021. In their letter, the IN SHPO agreed with the finding of the John Barman Farm as eligible for the NRHP under Criteria A and C for agriculture and architecture. They further agreed that the project, as it is currently designed, will minimize potential effects to the John Barman Farm, and will not adversely affect the NRHP-eligible property. They further concurred with the recommendations presented in the Phase Ia archaeological report that the portions of sites 12-La-

0727 and 12-La-0728 that lie within the project area do not require any additional work for the proposed project to proceed as planned. However, they further indicated that “The portions of sites 12-La-0727 and 12-La-0728 that lie outside the proposed project area should be clearly marked and must be avoided by all ground-disturbing project activities. If avoidance is not feasible, then a plan for subsurface archaeological investigations must be submitted to the [IN SHPO] for review and comment. Any further archaeological investigations must be done in accordance with the “Secretary of the Interior’s Standards and guidelines for Archeology and Historic Preservation” (48 F.R. 44716).”

Finally, on March 19, 2021, the Pokagon Band of Potawatomi responded by letter. They indicated that after reviewing the information provided in the Interim Effects Letter, there are no historic properties significant to the Pokagon Band of Potawatomi within the APE for the project. However, they asked to be contacted immediately if any archaeological resources are uncovered during the project.

A complete list of consulting parties and copies of the distributed letters are included in Appendix C. All comments received by consulting parties are also included in Appendix C.

A legal notice including the finding of “No Adverse Effect” will be placed as a public notice in *The Times of Northwest Indiana* (Munster, Indiana) in May 2021, and will be followed by a 30-day comment period. If necessary, this document will be revised after receiving input from the public.

APPENDIX

A. Maps and Photographs

1. Figure 1: Project Location
2. Figure 2: APE Overview
3. Figure 3: Photograph Location Map
4. Project Photographs
5. Proposed Roundabout Design
6. Stage 3 Design Plans

B. Report Abstracts and Conclusions

1. Historic Property Report
2. Phase Ia Archaeological Report

C. Consulting Parties

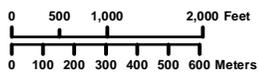
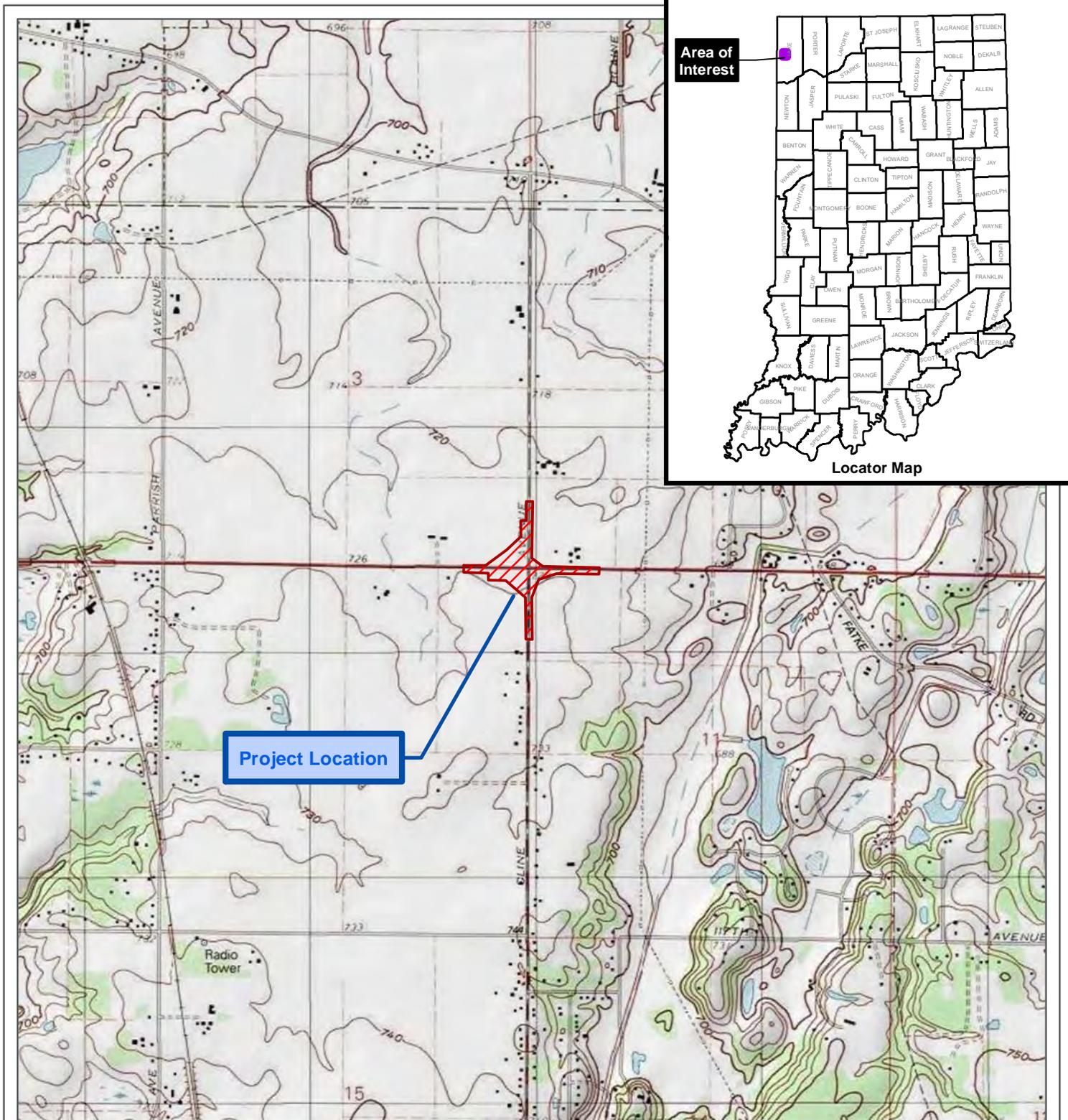
1. Consulting Party Summary Table
2. Consulting Party Correspondence

Appendix A

Maps and Photographs

- A.1 Figure 1: Project Location**
- A.2 Figure 2: Area of Potential Effects**
- A.3 Figure 3: Photograph Location Map**
- A.4 Project Photographs**
- A.5 Proposed Roundabout Design**
- A.6 Stage 3 Design Plans**

A1: Project Location



 Project Location

7.5' Quadrangle:
 Saint John
 T34n R9w Sec2,3,10,11
 Project No.
 j191018700

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Figure 1: Project Location
 US231 Intersection Improvement Project
 (INDOT Des. No. 1700022)
 The Troyer Group
 Lake County, Indiana

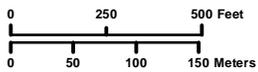
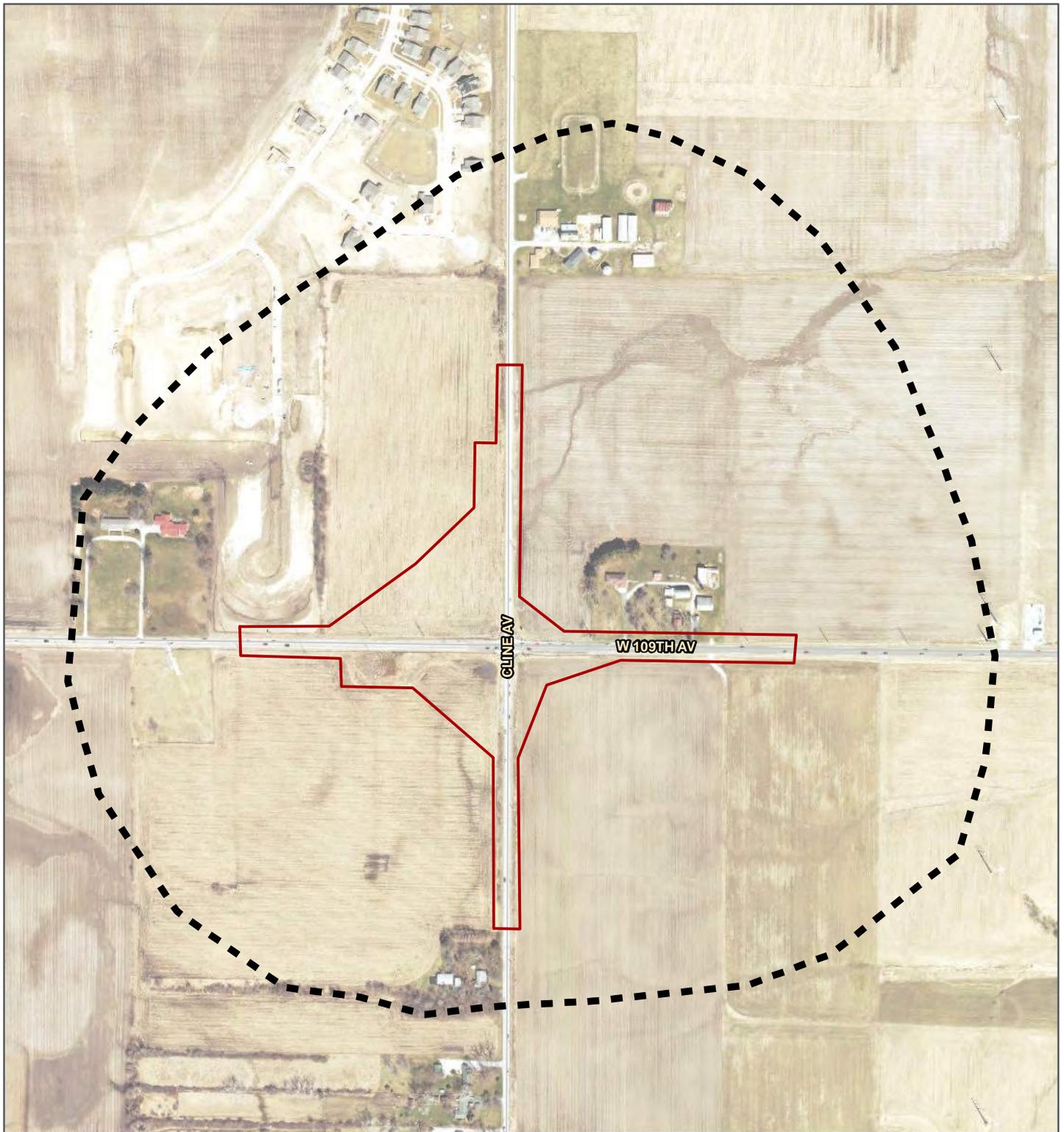

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 Area of Potential Effects
 Project Location


7.5' Quadrangle:
Saint John
T34n R9w Sec2,3,10,11
Project No.
j191018700

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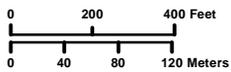
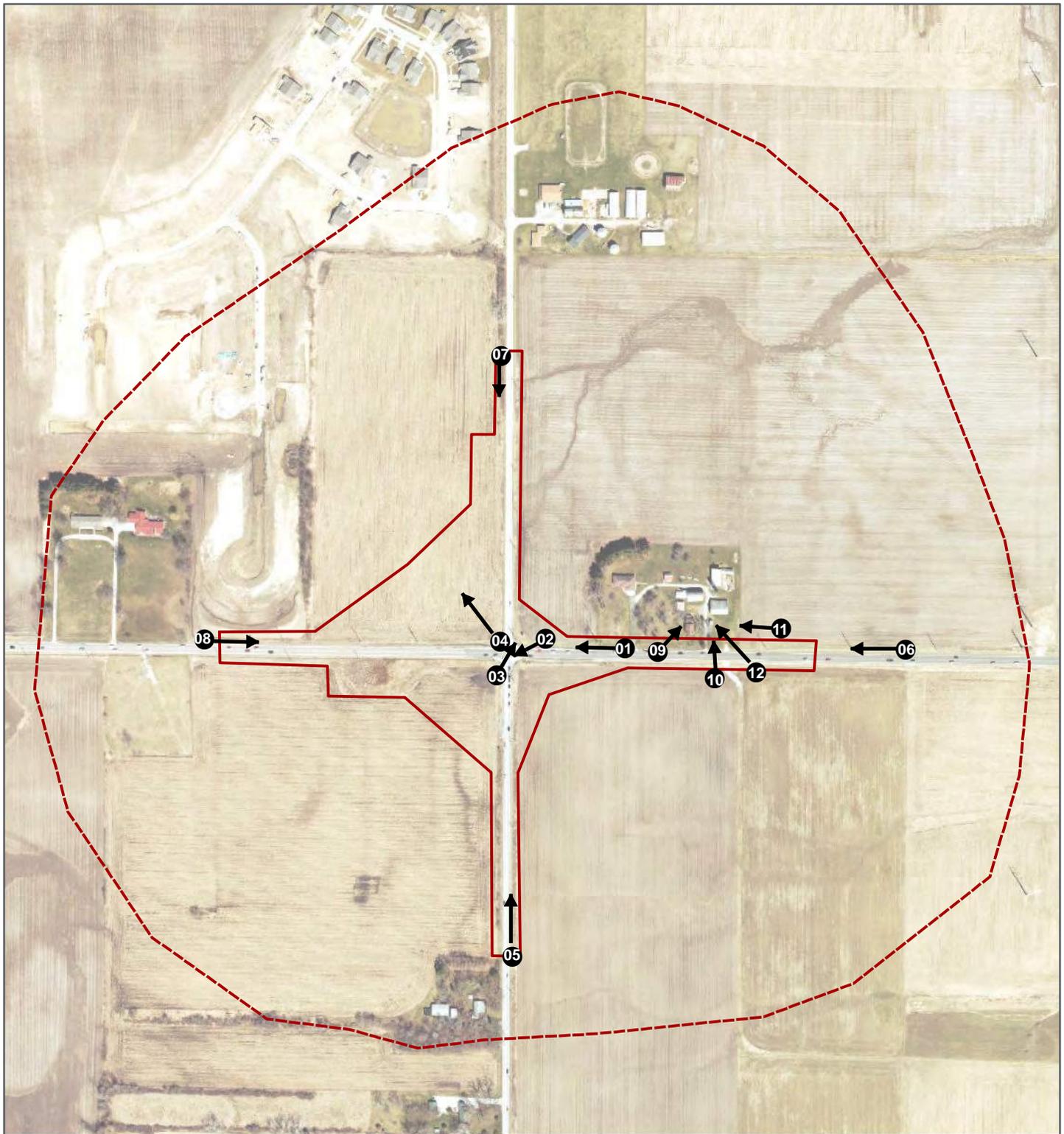
Figure 2: Area of Potential Effects (2018 Aerial)

U.S. 231 Intersection Improvement Project (INDOT Des. No. 1700022)
The Troyer Group
Lake County, Indiana



3901 Industrial Blvd., Indianapolis, IN 46254
 Phone (+1) 317-388-1982 Fax (+1) 317-388-1986
 www.cardno.com

A3: Photograph Location Map



- Photograph
- Area of Potential Effects
- Project Location


7.5' Quadrangle:
Saint John
T34n R9w Sec2,3,10,11
Project No.
j191018700

This map and all data contained within are supplied as is with no warranty. Cardno, Inc. expressly disclaims responsibility for damages or liability from any claims that may arise out of the use or misuse of this map. It is the sole responsibility of the user to determine if the data on this map meets the user's needs. This map was not created as survey data, nor should it be used as such. It is the user's responsibility to obtain proper survey data, prepared by a licensed surveyor, where required by law.

Figure 3: Photograph Locations (2018 Aerial)

U.S. 231 and Cline Avenue Roundabout
(INDOT Des. No. 1700022)
The Troyer Group
Lake County, Indiana



3901 Industrial Blvd., Indianapolis, IN 46254
 Phone (+1) 317-388-1982 Fax (+1) 317-388-1986
 www.cardno.com

A4: Project Photographs



Photo 1. View of U.S. 231 and Cline Avenue Intersection, facing west



Photo 2. View of U.S. 231 and Cline Avenue Intersection, facing southwest

A4: Project Photographs



Photo 3. View of U.S. 231 and Cline Avenue Intersection, facing northeast



Photo 4. View of APE from U.S. 231 and Cline Avenue Intersection, facing northwest

A4: Project Photographs



Photo 5: Project Area Overview, facing south



Photo 6: Project Area Overview, facing west

A4: Project Photographs



Photo 7: Project Area Overview, facing south



Photo 8: Project Area Overview, facing east



Photo 9. John Barman Farm (IHSSI 089-565-75008), corner view, facing north



Photo 10. John Barman Farm (IHSSI 089-565-75008), facing northwest

A4: Project Photographs



Photo 11. View of existing signage and utilities in the vicinity of the Barman Farm on West 109th Avenue, facing west.



Photo 12. View of existing signage and utilities in the vicinity of the Barman Farm on West 109th Avenue, facing northwest.



Photo 13. View of the English barn (IHSSI 089-565-75008), facing northwest.



Photo 14. View of the English barn (IHSSI 089-565-75008), facing southeast.



Photo 15. View of the timber frame construction, English barn (IHSSI 089-565-75008), facing up.



Photo 16. View of the brick footer in east central area of English barn (IHSSI 089-565-75008), facing down.



Photo 17. View of the low wall and mortise and tenon (IHSSI 089-565-75008), facing northwest.



Photo 18. View of the Cow barn (IHSSI 089-565-75008), facing southeast.



Photo 19. View of the Hog House (IHSSI 089-565-75008), facing west.



Photo 20. View of the Corn crib / Granary (IHSSI 089-565-75008), facing northwest.



Photo 21. View of the Milk house (IHSSI 089-565-75008), facing southeast.



Photo 22. View of the House (IHSSI 089-565-75008), facing northwest.



Photo 23. View of the Garage (IHSSI 089-565-75008), facing northwest.

A5: Proposed Design

c:\users\pfr\projectwise\explorer\dms12824\Des 1700022 US 231 - Cline NRHP Exhibit Overall.dgn
 12/14/2020 11:20:01 AM pfr



Proposed Roadway Signage and Approximate Location



NRHP Boundary, John Barman Farm

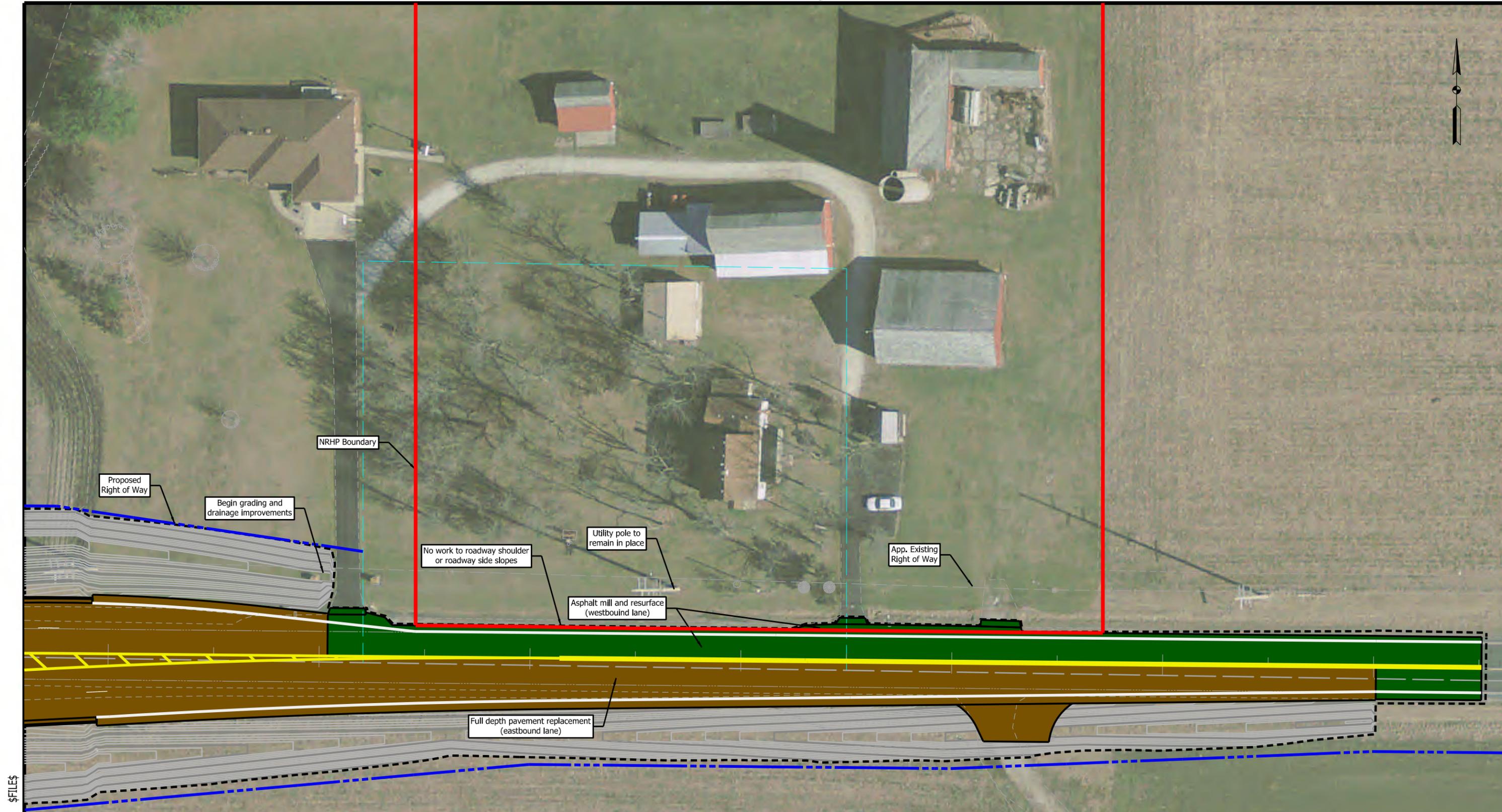


Proposed Right-of-Way

Proposed Overhead Light Poles

Apparent Existing Right-of-Way

| | |
|---|--|
| <p>US 231 at Cline Ave. - Des. No. 1700022</p> | |
|  <p>troyer group troyergroup.com Together, We Will</p> | <p>Scale: 1" = 100'</p> |
| | <p>ATTACHMENT 5 OVERALL LAYOUT</p> |



\$DATE\$
\$TIME\$
\$TTG\$
\$FILES\$

| | |
|--|--|
| US 231 at Cline Ave. - Des. No. 1700022 | |
|  troyer group troyergroup.com Together, We Will | Scale: 1" = 20' |
| | IMPROVEMENTS NEAR BARMAN FARM |

INDIANA DEPARTMENT OF TRANSPORTATION



ROAD PLANS

LOCATION: U.S. 231 - CLINE AVE INTERSECTION IMPROVEMENT

PROJECT NO. 1700022
1700022
1700022

P.E.
R/W
CONST.

| | |
|----------|-------------|
| PROJECT | DESIGNATION |
| 1700022 | 1700022 |
| CONTRACT | |
| R-42251 | |

SCALES:

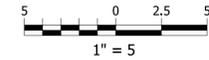
PLAN:



PROFILE HORIZ:



PROFILE VERT:



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

| | | |
|--------------------------|--------|----------|
| A.A.D.T. (2022) | 16,110 | V.P.D. |
| A.A.D.T. (2042) | 17,670 | V.P.D. |
| D.H.V (2042) | 1,626 | V.P.H. |
| DIRECTIONAL DISTRIBUTION | 52 % | EB |
| TRUCKS | 3.6% | A.A.D.T. |
| | 3.4% | D.H.V. |

DESIGN DATA

| | | |
|---------------------------|------------------------------|--------|
| DESIGN SPEED | 50 | M.P.H. |
| PROJECT DESIGN CRITERIA | RECONSTRUCTION (NON-FREEWAY) | |
| FUNCTIONAL CLASSIFICATION | PRINCIPAL ARTERIAL | |
| RURAL/URBAN | URBAN (SUBURBAN) | |
| TERRAIN | LEVEL | |
| ACCESS CONTROL | NONE | |

TRAFFIC DATA - CLINE AVE. N

| | | |
|--------------------------|-------|----------|
| A.A.D.T. (2022) | 6,380 | V.P.D. |
| A.A.D.T. (2042) | 6,990 | V.P.D. |
| D.H.V (2042) | 713 | V.P.H. |
| DIRECTIONAL DISTRIBUTION | 52 % | NB |
| TRUCKS | 2.6% | A.A.D.T. |
| | 2.6% | D.H.V. |

DESIGN DATA

| | | |
|---------------------------|------------------------------|--------|
| DESIGN SPEED | 40 | M.P.H. |
| PROJECT DESIGN CRITERIA | RECONSTRUCTION (NON-FREEWAY) | |
| FUNCTIONAL CLASSIFICATION | MINOR ARTERIAL | |
| RURAL/URBAN | URBAN (4R) | |
| TERRAIN | LEVEL | |
| ACCESS CONTROL | NONE | |

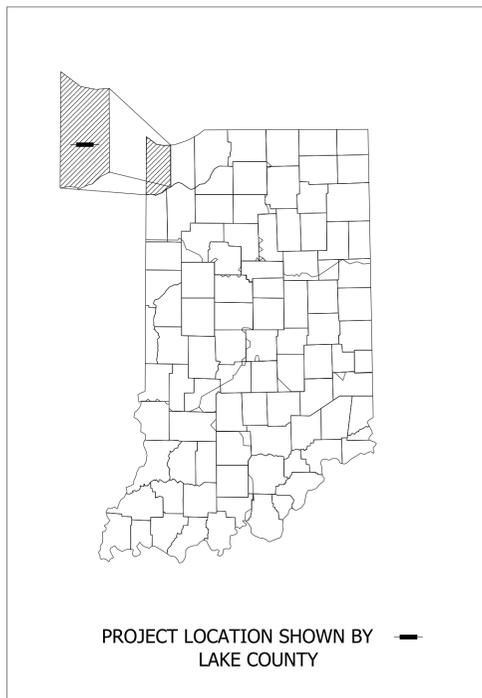
TRAFFIC DATA - CLINE AVE. S

| | | |
|--------------------------|-------|----------|
| A.A.D.T. (2022) | 3,300 | V.P.D. |
| A.A.D.T. (2042) | 3,620 | V.P.D. |
| D.H.V (2042) | 486 | V.P.H. |
| DIRECTIONAL DISTRIBUTION | 49 % | NB |
| TRUCKS | 3.3% | A.A.D.T. |
| | 3.1% | D.H.V. |

DESIGN DATA

| | | |
|---------------------------|------------------------------|--------|
| DESIGN SPEED | 30 | M.P.H. |
| PROJECT DESIGN CRITERIA | RECONSTRUCTION (NON-FREEWAY) | |
| FUNCTIONAL CLASSIFICATION | MINOR ARTERIAL | |
| RURAL/URBAN | RURAL | |
| TERRAIN | LEVEL | |
| ACCESS CONTROL | NONE | |

INTERSECTION IMPROVEMENT PROJECT ON U.S. 231 AT CLINE AVE
LOCATED IN SECTIONS
SEC 3, T-34-N, R-9-W SEC 2, T-34-N, R-9-W
SEC 10, T-34-N, R-9-W SEC 11, T-34-N, R-9-W
HANOVER TOWNSHIP CENTER TOWNSHIP
LAKE COUNTY, INDIANA, RP 295+30

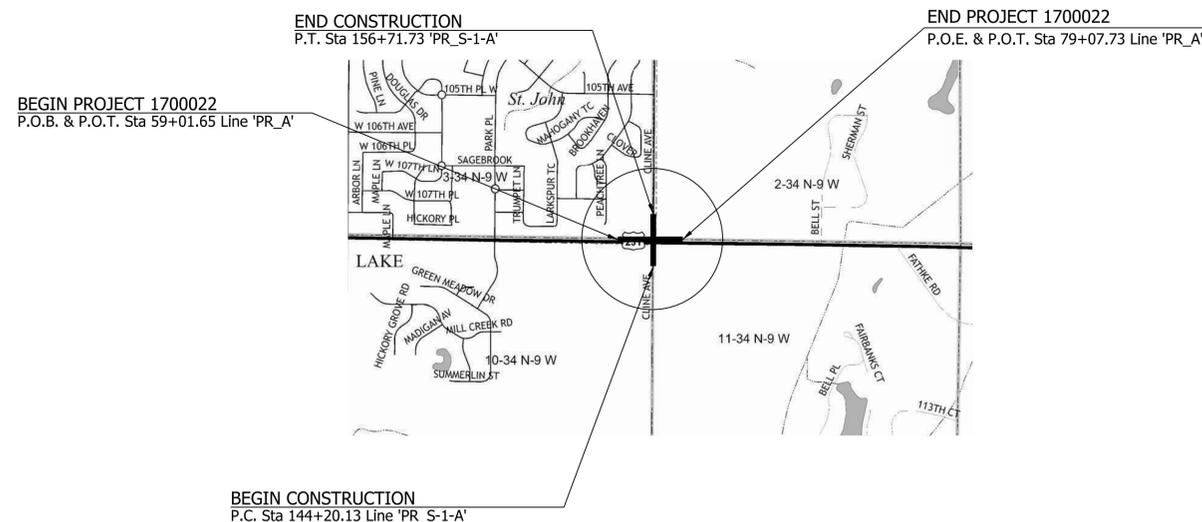


LATITUDE: 41° 25' 15" LONGITUDE: 87° 25' 52"

GROSS LENGTH: 0.38 MI.
NET LENGTH: 0.38 MI.
MAXIMUM GRADE: 2.0 %

HUC 14 # 04040001030030

STAGE 3 SUBMITTAL
SEPTEMBER 2022
INDIANA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS DATED 2020
TO BE USED WITH THESE PLANS



LOCATION MAP

HANOVER TOWNSHIP CENTER TOWNSHIP
SEC 3, T-34-N, R-9-W SEC 2, T-34-N, R-9-W
SEC 10, T-34-N, R-9-W SEC 11, T-34-N, R-9-W

LAKE COUNTY



PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 3/28/2021

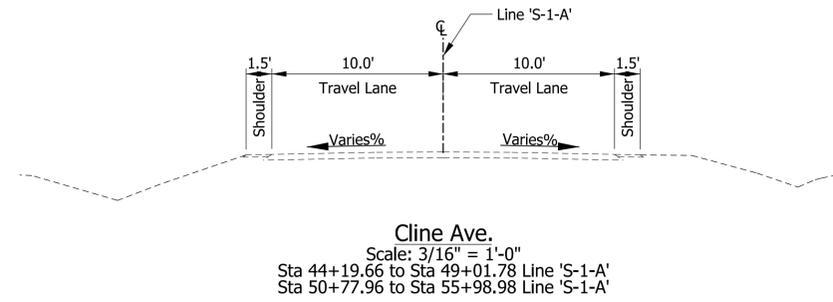
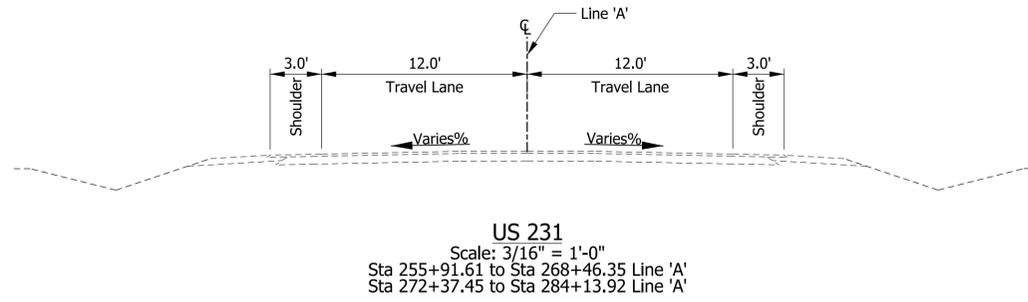
PLANS PREPARED BY: TROYER GROUP (574) 259-9976 PHONE NUMBER

CERTIFIED BY: _____ DATE _____

APPROVED FOR LETTING: _____ DATE _____

INDIANA DEPARTMENT OF TRANSPORTATION

| | |
|-------------|---------|
| DESIGNATION | |
| 1700022 | |
| SURVEY BOOK | SHEETS |
| CONTRACT | 1 of 42 |
| R-42251 | PROJECT |
| | 1700022 |



Note:

- Per the Engineer's Report prepared by Lawson-Fisher Associates P.C dated January 30, 2018, the Roadway History indicated that US 231 had composite pavement, with a 20 ft wide concrete section below the asphalt.
- Per the Geotechnical Engineering Investigation performed by K&S Engineers, Inc. on September 8, 2020, the pavement cores taken along the travel lanes of US 231 both east and west of Cline contained an asphalt section ranging from 5.75 inches to 7.5 inches with no concrete present.

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PRELIMINARY
 NOT FOR CONSTRUCTION
 DATE: 3/23/2021

| | | |
|--------------------------------|-----------------------|------------|
| RECOMMENDED FOR APPROVAL _____ | DESIGN ENGINEER _____ | DATE _____ |
| DESIGNED: PFR _____ | DRAWN: PFR _____ | |
| CHECKED: CLW _____ | CHECKED: LRD _____ | |

INDIANA
 DEPARTMENT OF TRANSPORTATION

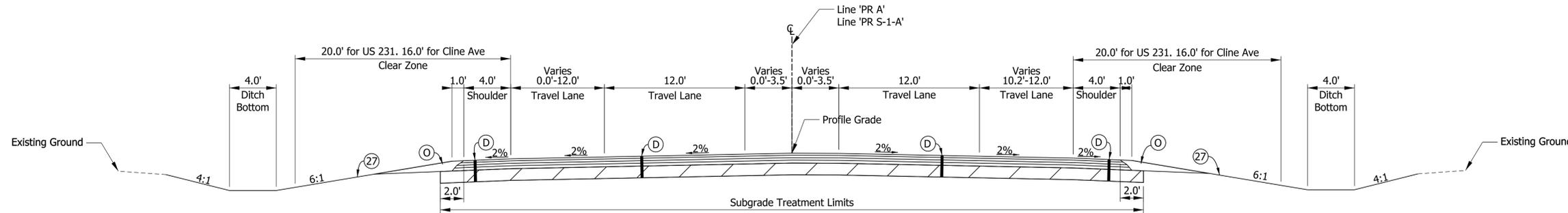
US 231 - CLINE AVE INTERSECTION IMPROVEMENT
 EXISTING TYPICAL SECTIONS

| | |
|------------------|-------------|
| HORIZONTAL SCALE | FILE |
| AS NOTED | |
| VERTICAL SCALE | DESIGNATION |
| N/A | 1700022 |
| SURVEY BOOK | SHEETS |
| | 3 of 42 |
| CONTRACT | PROJECT |
| R-42251 | 1700022 |

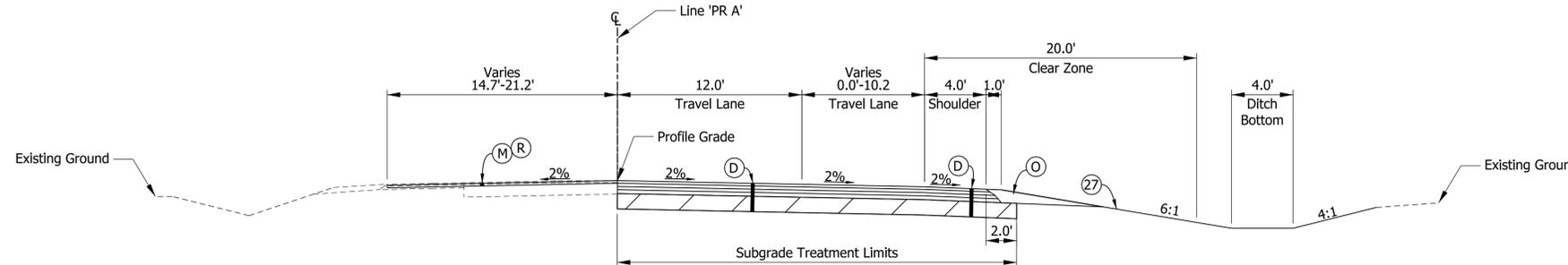
A.6: Stage 3 Design Plans

LEGEND

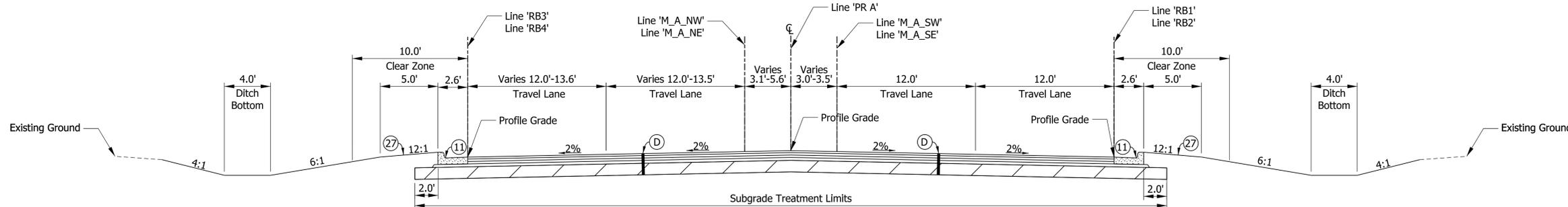
- (A) ___ in. PCCP (Colored), on ___ in. Compacted Aggregate No. ___, Subgrade Treatment, Type ___
- (A1) ___ in. PCCP (Colored), on ___ in. Compacted Aggregate No. ___, on Subgrade Treatment, Type ___
- (D) ___ lb/syd QC/QA HMA, ___ Surface, ___ mm, on ___ lb/syd QC/QA HMA, ___ Intermediate, ___ mm, on ___ lb/syd QC/QA HMA, ___ Intermediate, ___ mm, on ___ lb/syd QC/QA HMA, ___ Base, ___ mm, on Drainage Layer Consisting of: ___ lb/syd QC/QA HMA, ___ Intermediate, ___ mm-OG on Separation Layer Consisting of: ___ in. Compacted Aggregate No. ___, on Subgrade Treatment, Type IBC
- (O) Variable Depth Compacted Aggregate, No. 53
- (11) Curb and Gutter, Concrete
- (12) Curb and Gutter, B, Concrete
- (13) Curb and Gutter, B, Concrete, Modified (Inverted) (3")
- (14) Curb, Integral, Concrete
- (15) Curb and Gutter, B, Concrete, Modified (Inverted)
- (26) Sodding on 4" of Topsoil
- (27) Mulched Seeding R



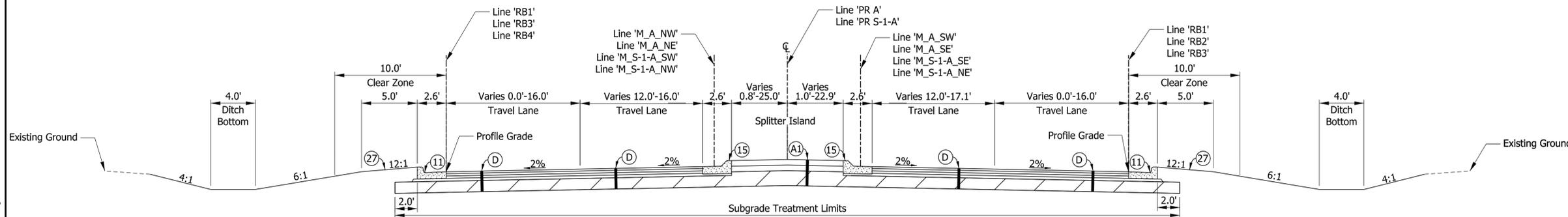
US 231 and Cline Ave.
 Scale: 3/16" = 1'-0"
 Sta 59+01.65 to Sta 65+00.00 Line 'PR_A'
 Sta 73+00.00 to Sta 74+10.66 Line 'PR_A'
 Sta 144+20.13 to Sta 146+96.00 Line 'PR_S-1-A'
 Sta 153+04.00 to Sta 156+71.73 Line 'PR_S-1-A'



US 231 and Cline Ave.
 Scale: 3/16" = 1'-0"
 Sta 74+10.66 to Sta 79+07.73 Line 'PR_A'



US 231 and Cline Ave.
 Scale: 3/16" = 1'-0"
 Sta 65+00.00 to Sta 65+96.00 Line 'PR_A'
 Sta 72+04.00 to Sta 73+00.00 Line 'PR_A'



US 231 and Cline Ave.
 Scale: 3/16" = 1'-0"
 Sta 65+96.00 to Sta 68+08.97 Line 'PR_A'
 Sta 70+02.44 to Sta 72+00.00 Line 'PR_A'
 Sta 146+96.00 to Sta 149+01.16 Line 'PR_S-1-A'
 Sta 150+93.95 to Sta 153+04.00 Line 'PR_S-1-A'

Note to Reviewer:
 Pavement Design will be per Approved Pavement Design.
 Subgrade Treatment will be per Geotechnical Report.

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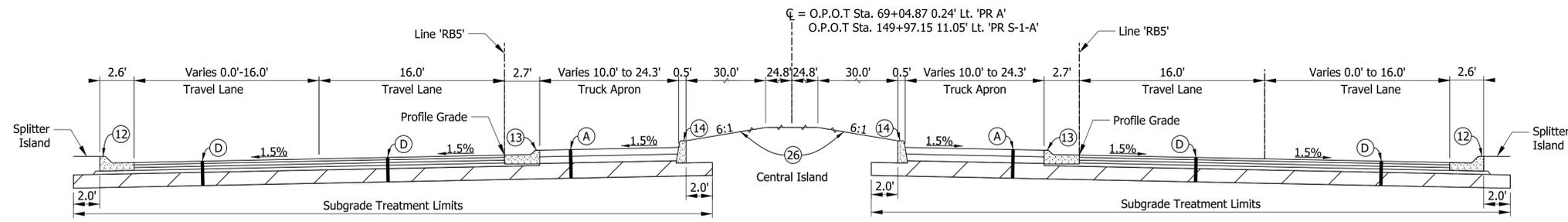
PRELIMINARY
 NOT FOR CONSTRUCTION
 DATE: 3/23/2021

| | | |
|--------------------------|-----------------|------|
| RECOMMENDED FOR APPROVAL | DESIGN ENGINEER | DATE |
| DESIGNED: PFR | DRAWN: PFR | |
| CHECKED: CLW | CHECKED: LRD | |

INDIANA DEPARTMENT OF TRANSPORTATION

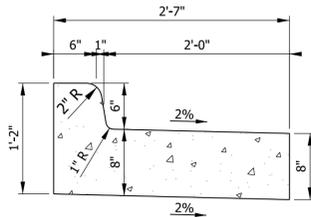
US 231 - CLINE AVE INTERSECTION IMPROVEMENT
 PROPOSED TYPICAL SECTIONS

| | |
|------------------|-------------|
| HORIZONTAL SCALE | FILE |
| AS NOTED | |
| VERTICAL SCALE | DESIGNATION |
| N/A | 1700022 |
| SURVEY BOOK | SHEETS |
| | 4 of 42 |
| CONTRACT | PROJECT |
| R-42251 | 1700022 |

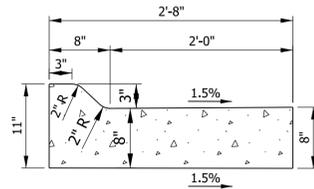


Roundabout Circulatory Roadway at Splitter Island
Scale: 3/16" = 1'-0"

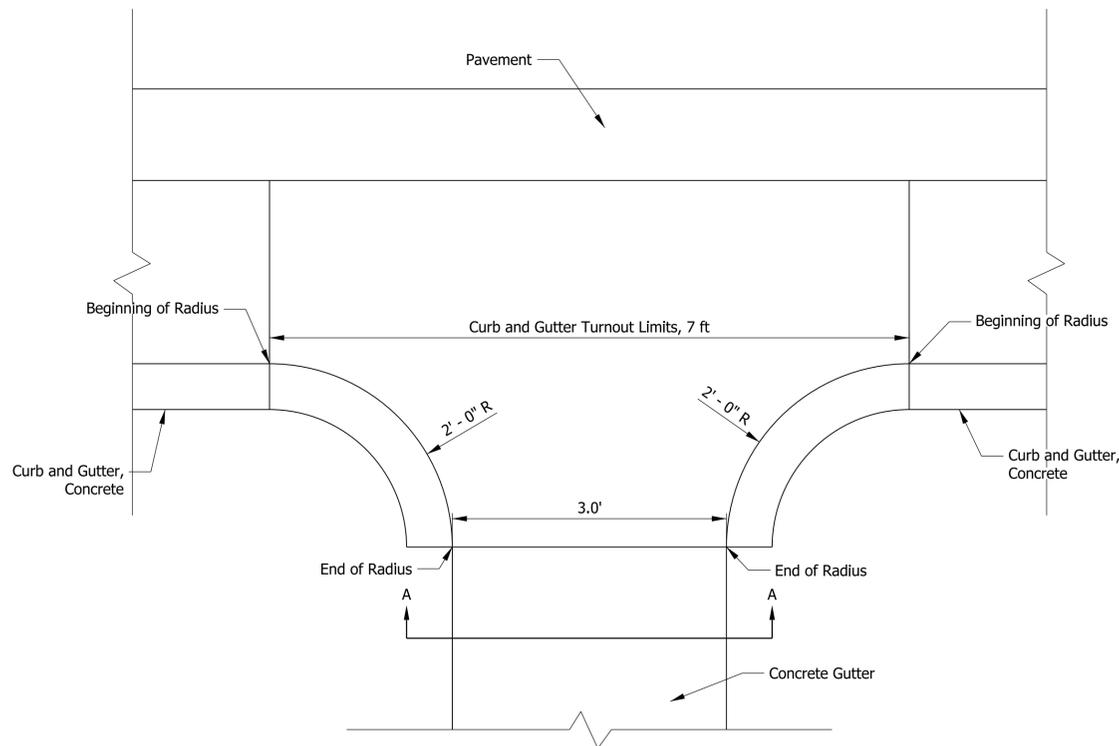
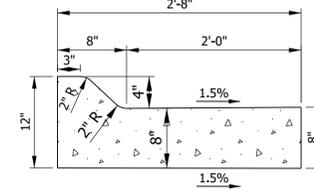
- LEGEND**
- (A) ___ in. PCCP (Colored), on ___ in. Compacted Aggregate No. ___ Subgrade Treatment, Type ___
 - (A1) ___ in. PCCP (Colored), on ___ in. Compacted Aggregate No. ___ on Subgrade Treatment, Type ___
 - (D) ___ lb/syd QC/QA HMA, ___ Surface, ___ mm, on ___ lb/syd QC/QA HMA, ___ Intermediate, ___ mm, on ___ lb/syd QC/QA HMA, ___ Intermediate, ___ mm, on ___ lb/syd QC/QA HMA, ___ Base, ___ mm, on Drainage Layer Consisting of: ___ lb/syd QC/QA HMA, ___ Intermediate, ___ mm-OG on Separation Layer Consisting of: ___ in. Compacted Aggregate No. ___ on Subgrade Treatment, Type IBC
 - (O) Variable Depth Compacted Aggregate, No. 53
 - (11) Curb and Gutter, Concrete
 - (12) Curb and Gutter, B, Concrete
 - (13) Curb and Gutter, B, Concrete, Modified (Inverted) (3")
 - (14) Curb, Integral, Concrete
 - (15) Curb and Gutter, B, Concrete, Modified (Inverted)
 - (26) Sodding on 4" of Topsoil
 - (27) Mulched Seeding R



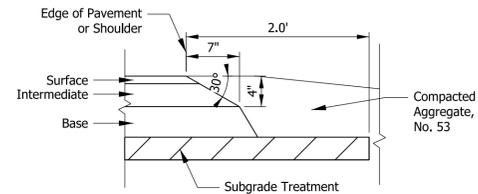
CURB AND GUTTER, B, CONCRETE, MODIFIED (INVERTED) (3" REVEAL)
SCALE: 1" = 1'-0"



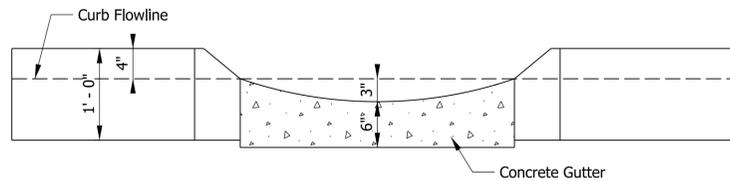
CURB AND GUTTER, B, CONCRETE, MODIFIED (INVERTED)
SCALE: 1" = 1'-0"



CURB AND GUTTER, TURNOUT DETAIL
SCALE: 1" = 1'-0"



SAFETY EDGE DETAIL
SCALE: 1" = 1'-0"



SECTION A-A
SCALE: 1" = 1'-0"

Note to Reviewer:
Pavement Design will be per Approved Pavement Design.
Subgrade Treatment will be per Geotechnical Report.

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DATE: 3/23/2021

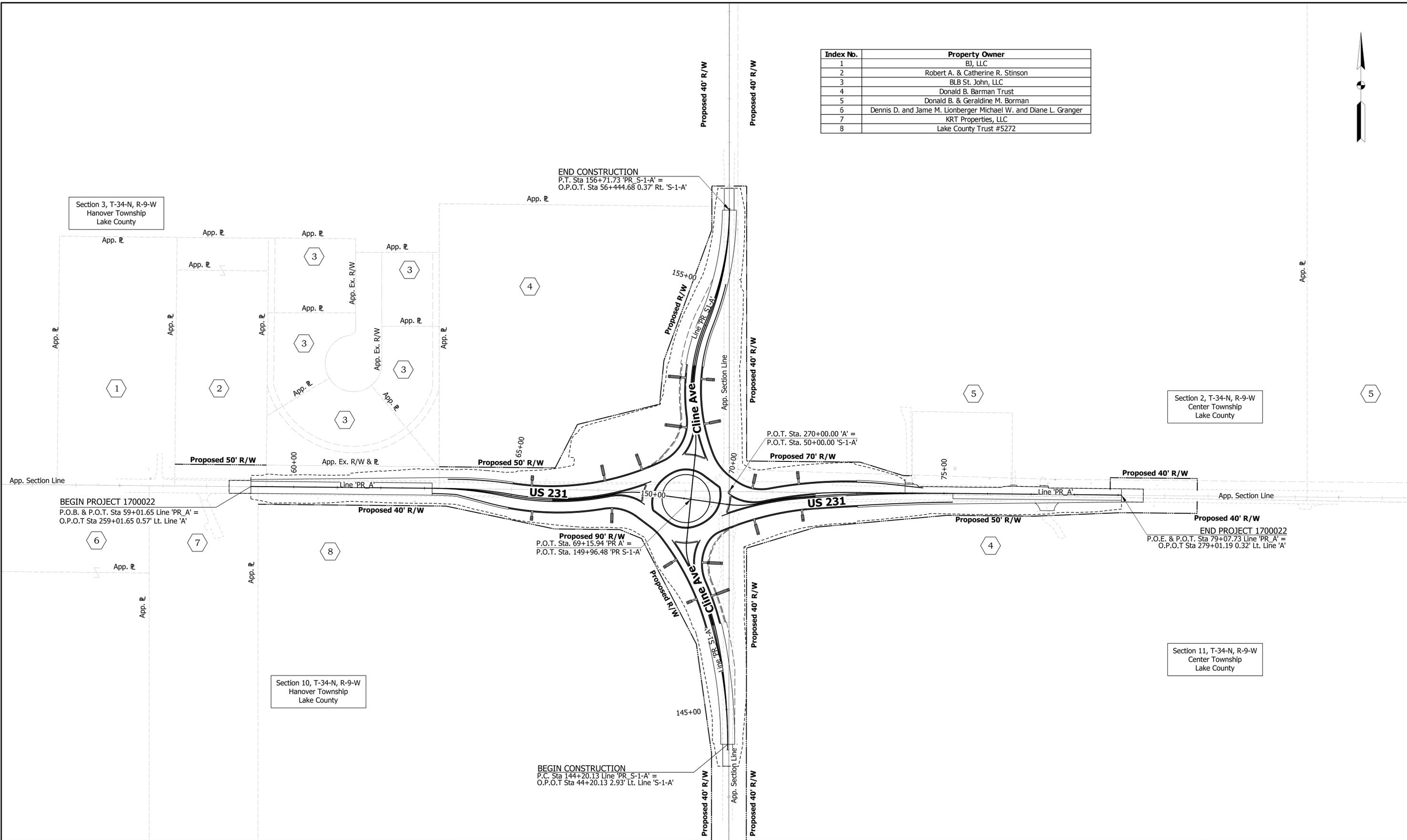
| | | |
|--------------------------|-----------------|------|
| RECOMMENDED FOR APPROVAL | DESIGN ENGINEER | DATE |
| DESIGNED: PFR | DRAWN: PFR | |
| CHECKED: CLW | CHECKED: LRD | |

INDIANA
DEPARTMENT OF TRANSPORTATION

US 231 - CLINE AVE INTERSECTION IMPROVEMENT
PROPOSED TYPICAL SECTIONS

| | |
|------------------|-------------|
| HORIZONTAL SCALE | FILE |
| AS NOTED | |
| VERTICAL SCALE | DESIGNATION |
| N/A | 1700022 |
| SURVEY BOOK | SHEETS |
| | 5 of 42 |
| CONTRACT | PROJECT |
| R-42251 | 1700022 |

| Index No. | Property Owner |
|-----------|--|
| 1 | BJ, LLC |
| 2 | Robert A. & Catherine R. Stinson |
| 3 | BLB St. John, LLC |
| 4 | Donald B. Barman Trust |
| 5 | Donald B. & Geraldine M. Borman |
| 6 | Dennis D. and Jame M. Lionberger Michael W. and Diane L. Granger |
| 7 | KRT Properties, LLC |
| 8 | Lake County Trust #5272 |



Section 3, T-34-N, R-9-W
Hanover Township
Lake County

Section 2, T-34-N, R-9-W
Center Township
Lake County

Section 10, T-34-N, R-9-W
Hanover Township
Lake County

Section 11, T-34-N, R-9-W
Center Township
Lake County

BEGIN PROJECT 1700022
P.O.B. & P.O.T. Sta 59+01.65 Line 'PR A' =
O.P.O.T Sta 259+01.65 0.57' Lt. Line 'A'

END PROJECT 1700022
P.O.E. & P.O.T. Sta 79+07.73 Line 'PR A' =
O.P.O.T Sta 279+01.19 0.32' Lt. Line 'A'

END CONSTRUCTION
P.T. Sta 156+71.73 'PR S-1-A' =
O.P.O.T. Sta 56+444.68 0.37' Rt. 'S-1-A'

Proposed 90' R/W
P.O.T. Sta. 69+15.94 'PR A' =
P.O.T. Sta. 149+96.48 'PR S-1-A'

BEGIN CONSTRUCTION
P.C. Sta 144+20.13 Line 'PR S-1-A' =
O.P.O.T Sta 44+20.13 2.93' Lt. Line 'S-1-A'

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PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 3/28/2021

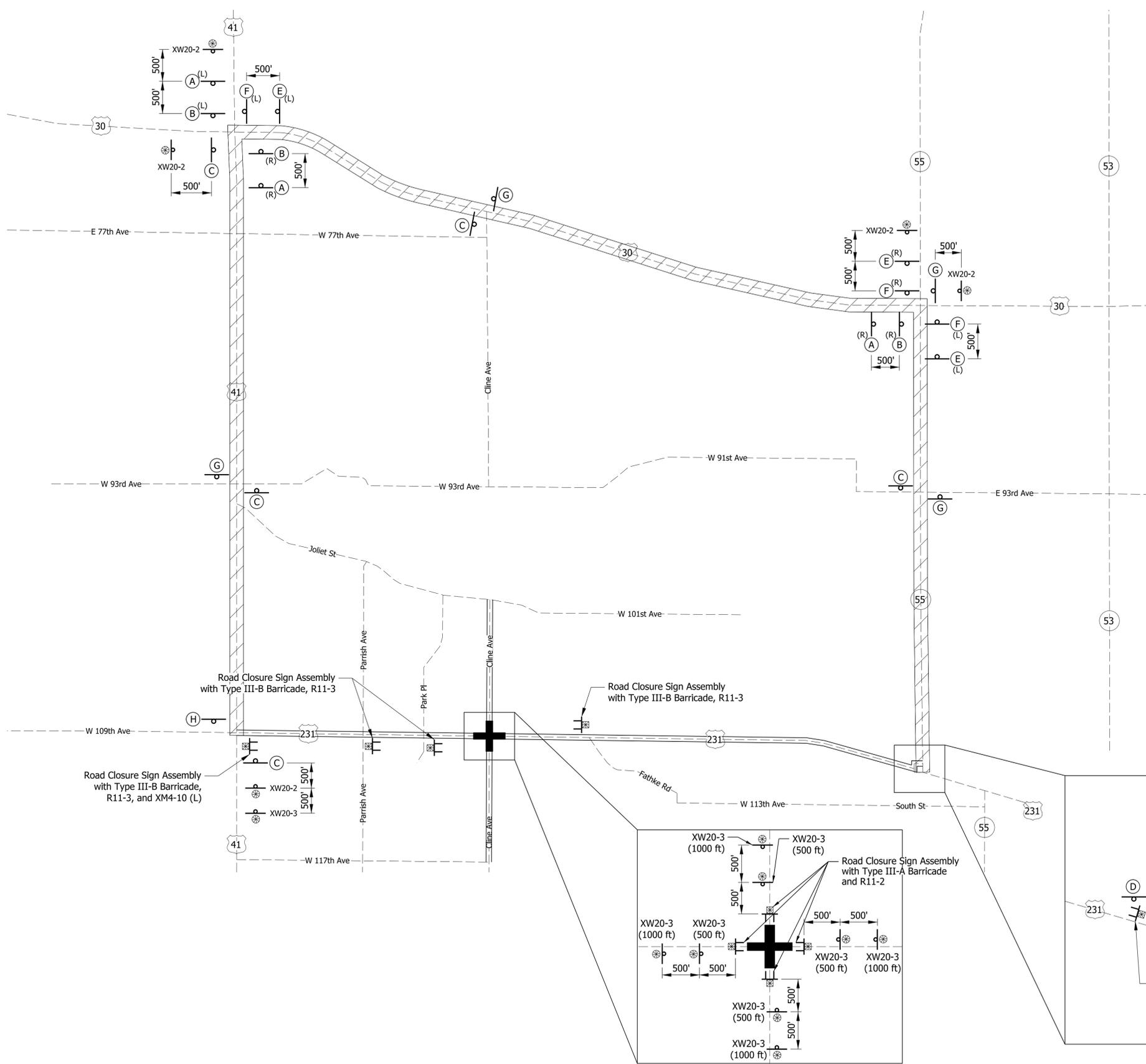
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|--------------------------|-----------------|------|
| RECOMMENDED FOR APPROVAL | DESIGN ENGINEER | DATE |
| DESIGNED: PFR | DRAWN: PFR | |
| CHECKED: CLW | CHECKED: LRD | |

INDIANA
DEPARTMENT OF TRANSPORTATION

US 231 - CLINE AVE INTERSECTION IMPROVEMENT
PLAT NO. 1

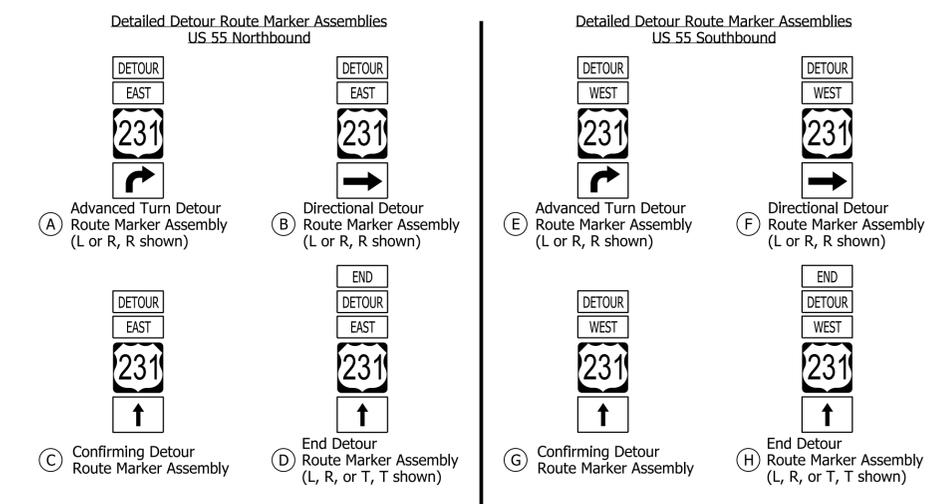
| | |
|------------------|-------------|
| HORIZONTAL SCALE | FILE |
| 1" = 100' | |
| VERTICAL SCALE | DESIGNATION |
| N/A | 1700022 |
| SURVEY BOOK | SHEETS |
| | 6 of 42 |
| CONTRACT | PROJECT |
| R-42251 | 1700022 |

A.6: Stage 3 Design Plans



LEGEND

| | | | |
|--|-------------------------------------|--|---|
| | Construction Sign | | ROAD CLOSED R11-2 |
| | Barricade Type III-A or III-B | | ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY R11-3 |
| | Type 'A' Construction Warning Light | | END CONSTRUCTION XG20-2 |
| | Type 'B' Construction Warning Light | | DETOUR XM4-10 (R or L) |
| | Direction of Travel | | DETOUR AHEAD XW20-2 |
| | Official State Detour | | ROAD CLOSED AHEAD XW20-3 (500 ft or 1000 ft) |
| | Route Effected by Detour | | |
| | Closed Section of Roadway | | |



Summary of Quantities - Des 1700022

| | |
|---|--------------|
| Construction Sign Type 'A' | 16 EA |
| Road Closure Sign Assembly | 9 EA |
| Barricade Type III-A | 96 LF |
| Barricade Type III-B | 40 LF |
| Detour Route Marker Assembly (A) | 3 EA |
| Detour Route Marker Assembly (B) | 5 EA |
| Detour Route Marker Assembly (C) | 5 EA |
| Detour Route Marker Assembly (D) | 1 EA |
| Detour Route Marker Assembly (E) | 4 EA |
| Detour Route Marker Assembly (F) | 4 EA |
| Detour Route Marker Assembly (G) | 5 EA |
| Detour Route Marker Assembly (H) | 1 EA |
| Total Detour Route Marker Assembly | 28 EA |

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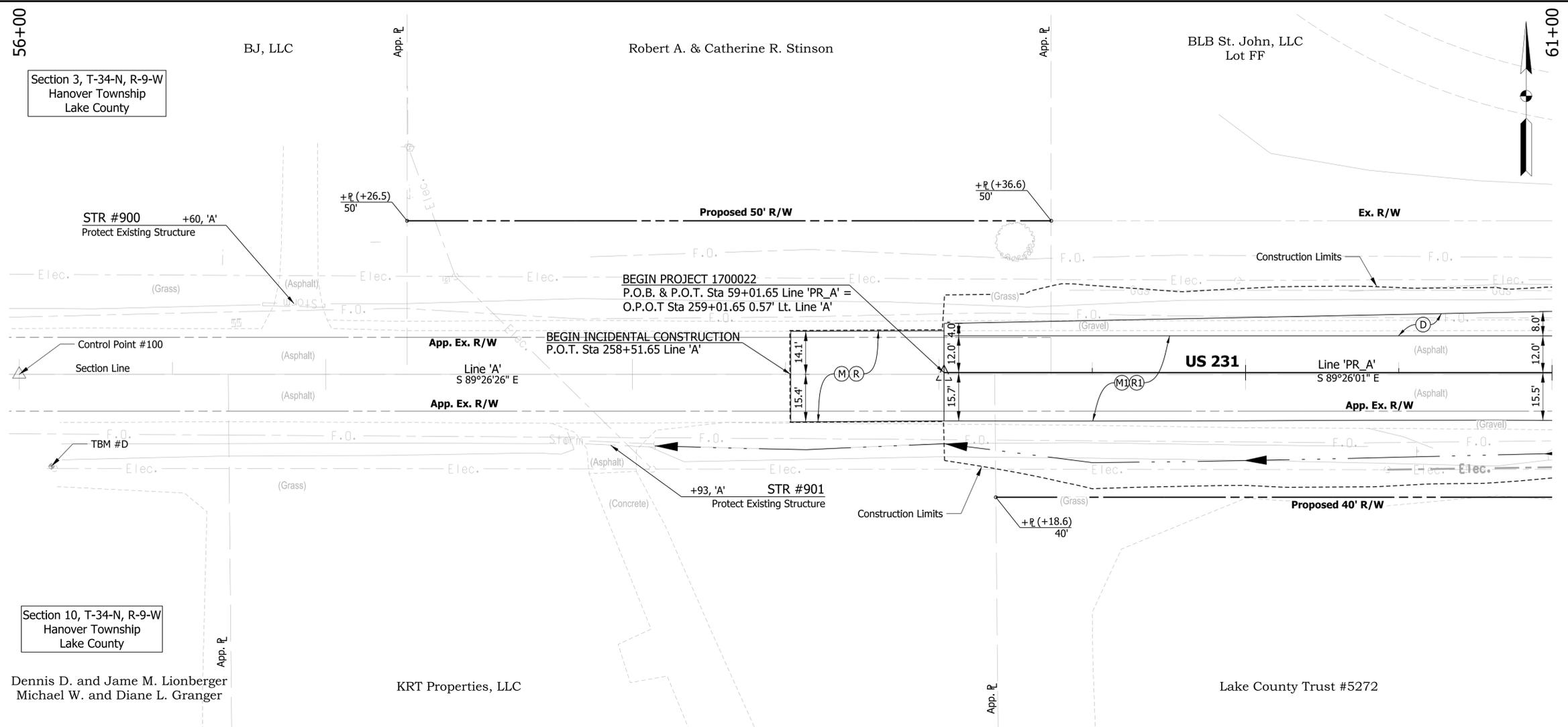
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DATE: 2/28/2021

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| DESIGNED: PFR | DRAWN: PFR | |
| CHECKED: CLW | CHECKED: LRD | |

INDIANA DEPARTMENT OF TRANSPORTATION

US 231 - CLINE AVE INTERSECTION IMPROVEMENT
MAINTENANCE OF TRAFFIC DETOUR

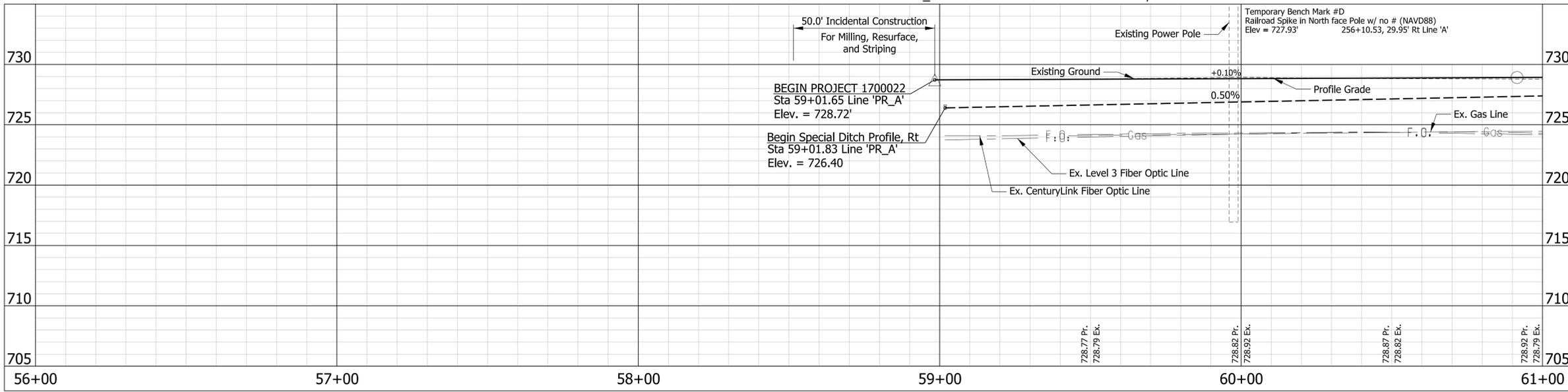
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| HORIZONTAL SCALE | FILE |
| NTS | |
| VERTICAL SCALE | DESIGNATION |
| N/A | 1700022 |
| SURVEY BOOK | SHEETS |
| | 7 of 42 |
| CONTRACT | PROJECT |
| R-42251 | 1700022 |



- LEGEND**
- (A) ___ in. PCCP (Colored), on ___ in. Compacted Aggregate No. ___, on ___ Subgrade Treatment, Type ___
 - (A1) ___ in. PCCP (Colored), on ___ in. Compacted Aggregate No. ___, on ___ Subgrade Treatment, Type ___
 - (C) HMA for Approaches, Type B, Consisting of: 165 lb/syd HMA Surface, on 275 lb/syd HMA Intermediate, on 6 in. Compacted Aggregate No. 53, on Subgrade Treatment Type II
 - (C1) 6 in. Compacted Aggregate No. 53
 - (D) ___ lb/syd QC/QA HMA, ___ Surface, ___ mm, on ___ lb/syd QC/QA HMA, ___ Intermediate, ___ mm, on ___ lb/syd QC/QA HMA, ___ Intermediate, ___ mm, on ___ lb/syd QC/QA HMA, ___ Base, ___ mm, on Drainage Layer Consisting of: ___ lb/syd QC/QA HMA, ___ Intermediate, ___ mm-OG on Separation Layer Consisting of: ___ in. Compacted Aggregate No. ___, on Subgrade Treatment, Type IBC
 - (M) Asphalt Milling, ___ in.
 - (M1) Milling, Profile
 - (R) ___ lb/syd QC/QA HMA, ___ Surface ___ mm
 - (R1) ___ lb/syd QC/QA HMA, ___ Surface ___ mm, on ___ lb/syd QC/QA HMA, ___ Intermediate ___ mm
 - (11) Curb and Gutter, Concrete
 - (12) Curb and Gutter, B, Concrete
 - (13) Curb and Gutter, B, Concrete, Modified (Inverted) (3")
 - (14) Curb, Integral, Concrete
 - (15) Curb and Gutter, B, Concrete, Modified (Inverted)
 - (18) Curb and Gutter, Turn Out Concrete
 - (26) Sodding on 4" of Topsoil
 - (28) Turf Reinforcement Mat

| EARTHWORK SUMMARY TABLE | | |
|--------------------------------|-------|-----|
| Des #1700022 | | |
| Cut (Cross Sections) | 10768 | CYS |
| Cut (Cline Ave) | 235 | CYS |
| Total Common Excavation | 11003 | CYS |
| * Less Unsuitable Material | 4328 | CYS |
| Usable Material | 6675 | CYS |
| Fill | 11853 | CYS |
| +25% Shrinkage | 2963 | CYS |
| Total Fill | 14816 | CYS |
| Less Useable Common Excavation | 6675 | CYS |
| Borrow | 8141 | CYS |

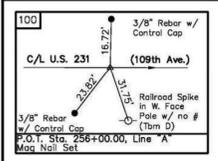
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Note to Reviewer:
Topo Notes have been Requested from the Surveyor

Note to Reviewer:
Pavement Design will be per Approved Pavement Design. Subgrade Treatment will be per Geotechnical Report.

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DATE: 3/28/2021

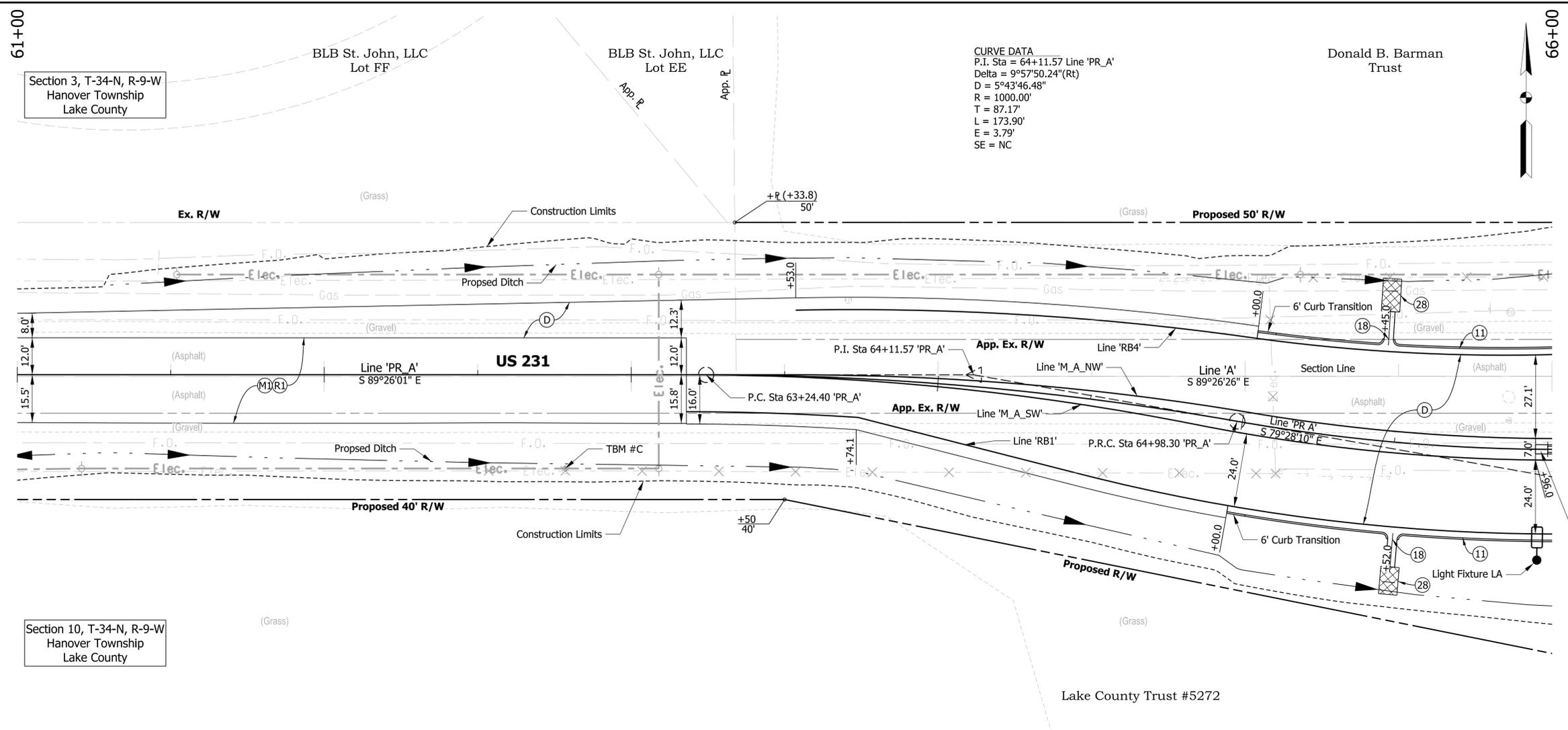
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| DESIGNED: PFR | DRAWN: PFR | |
| CHECKED: CLW | CHECKED: LRD | |

INDIANA
DEPARTMENT OF TRANSPORTATION

US 231 - CLINE AVE INTERSECTION IMPROVEMENT
PLAN AND PROFILE LINE 'PR_A'

| | |
|------------------|-------------|
| HORIZONTAL SCALE | FILE |
| 1" = 20' | |
| VERTICAL SCALE | DESIGNATION |
| 1" = 5' | 1700022 |
| SURVEY BOOK | SHEETS |
| | 8 of 42 |
| CONTRACT | PROJECT |
| R-42251 | 1700022 |

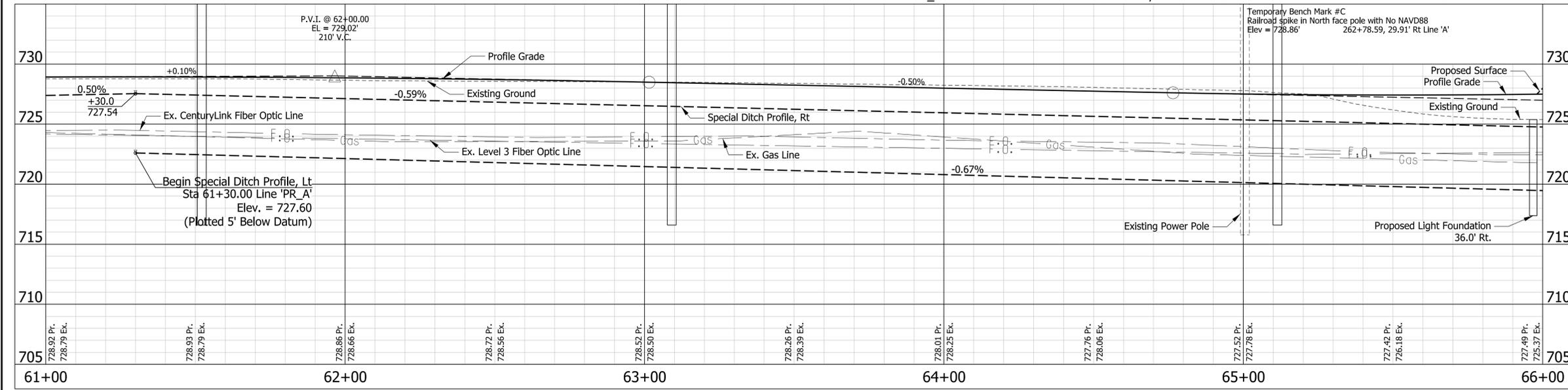
A.6: Stage 3 Design Plans



CURVE DATA
 P.I. Sta = 64+11.57 Line 'PR_A'
 Delta = 9°57'50.24" (Rt)
 D = 5°43'46.48"
 R = 1000.00'
 T = 87.17'
 L = 173.90'
 E = 3.79'
 SE = NC

- LEGEND
- (A) ___ in. PCCP (Colored), on ___ in. Compacted Aggregate No. ___, Subgrade Treatment, Type ___
 - (A1) ___ in. PCCP (Colored), on ___ in. Compacted Aggregate No. ___, on Subgrade Treatment, Type ___
 - (C) HMA for Approaches, Type B, Consisting of: 165 lb/syd HMA Surface, on 275 lb/syd HMA Intermediate, on 6 in. Compacted Aggregate No. 53, on Subgrade Treatment Type II
 - (C1) 6 in. Compacted Aggregate No. 53
 - (D) ___ lb/syd QC/QA HMA, ___ Surface, ___ mm, on ___ lb/syd QC/QA HMA, ___ Intermediate, ___ mm, on ___ lb/syd QC/QA HMA, ___ Intermediate, ___ mm, on ___ lb/syd QC/QA HMA, ___ Base, ___ mm, on Drainage Layer Consisting of: ___ lb/syd QC/QA HMA, ___ Intermediate, ___ mm-OG on Separation Layer Consisting of: ___ in. Compacted Aggregate No. ___, on Subgrade Treatment, Type IBC
 - (M) Asphalt Milling, ___ in.
 - (M1) Milling, Profile
 - (R) ___ lb/syd QC/QA HMA, ___ Surface ___ mm
 - (R1) ___ lb/syd QC/QA HMA, ___ Surface ___ mm, on ___ lb/syd QC/QA HMA, ___ Intermediate ___ mm
 - (11) Curb and Gutter, Concrete
 - (12) Curb and Gutter, B, Concrete
 - (13) Curb and Gutter, B, Concrete, Modified (Inverted) (3")
 - (14) Curb, Integral, Concrete
 - (15) Curb and Gutter, B, Concrete, Modified (Inverted)
 - (18) Curb and Gutter, Turn Out Concrete
 - (26) Sodding on 4" of Topsoil
 - (28) Turf Reinforcement Mat

ALL TOPOGRAPHY ON THIS SHEET DESCRIBED FROM LINE 'PR_A' UNLESS OTHERWISE NOTED. ALL R/W ON THIS SHEET DESCRIBED FROM LINE 'A' UNLESS OTHERWISE NOTED.



Note to Reviewer:
 Topo Notes have been Requested from the Surveyor

Note to Reviewer:
 Pavement Design will be per Approved Pavement Design. Subgrade Treatment will be per Geotechnical Report.

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 DATE: 3/28/2021

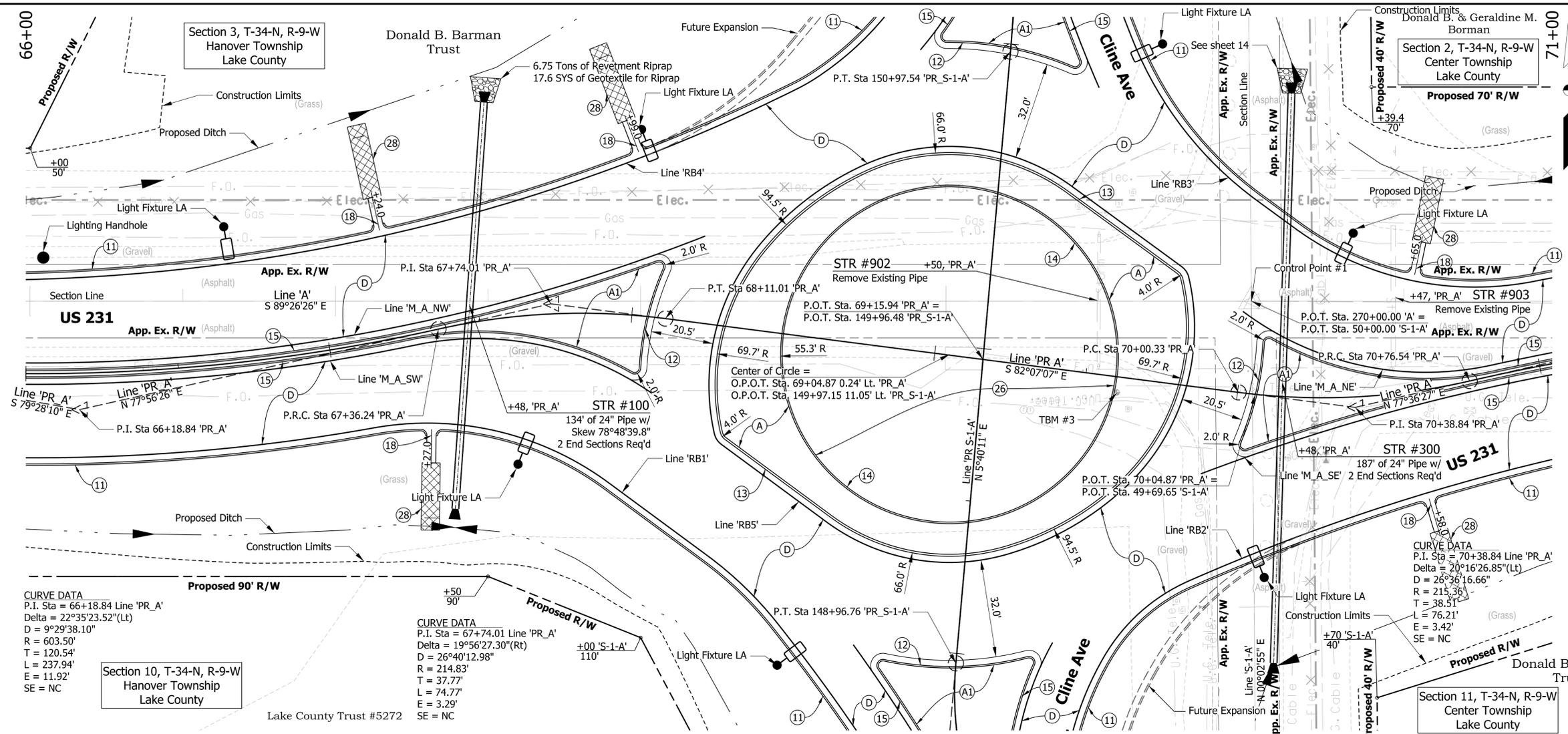
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| RECOMMENDED FOR APPROVAL | DESIGN ENGINEER | DATE |
| DESIGNED: PFR | DRAWN: PFR | |
| CHECKED: CLW | CHECKED: LRD | |

INDIANA
 DEPARTMENT OF TRANSPORTATION

US 231 - CLINE AVE INTERSECTION IMPROVEMENT
 PLAN AND PROFILE LINE 'PR_A'

| | |
|------------------|-------------|
| HORIZONTAL SCALE | FILE |
| 1" = 20' | |
| VERTICAL SCALE | DESIGNATION |
| 1" = 5' | 1700022 |
| SURVEY BOOK | SHEETS |
| | 9 of 42 |
| CONTRACT | PROJECT |
| R-42251 | 1700022 |

A.6: Stage 3 Design Plans

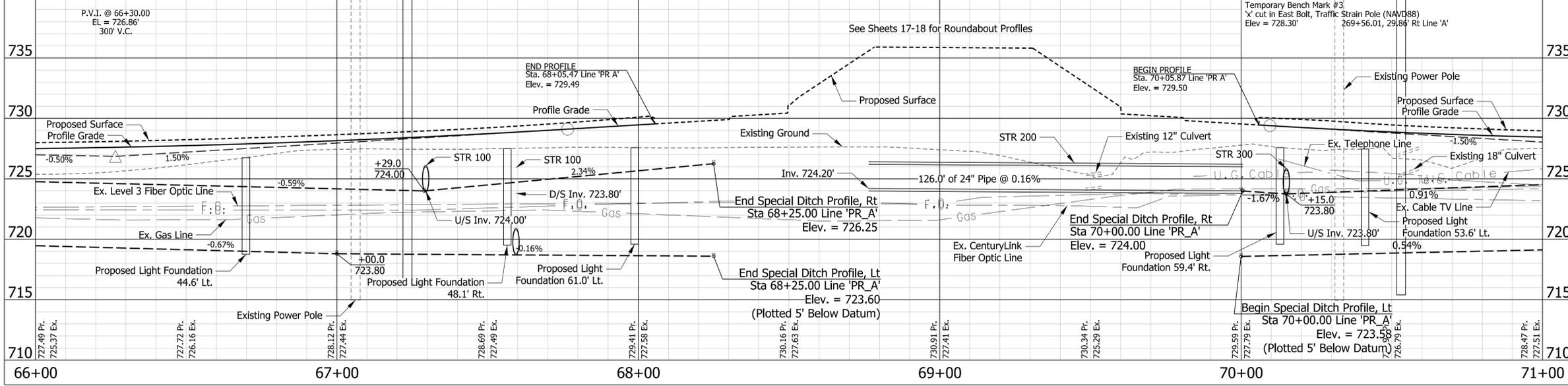


CURVE DATA
 P.I. Sta = 66+18.84 Line 'PR_A'
 Delta = 22°35'23.52"(Lt)
 D = 9°29'38.10"
 R = 603.50'
 T = 120.54'
 L = 237.94'
 E = 11.92'
 SE = NC

CURVE DATA
 P.I. Sta = 67+74.01 Line 'PR_A'
 Delta = 19°56'27.30"(Rt)
 D = 26°40'12.98"
 R = 214.83'
 T = 37.77'
 L = 74.77'
 E = 3.29'
 SE = NC

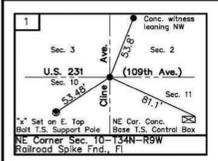
CURVE DATA
 P.I. Sta = 70+38.84 Line 'PR_A'
 Delta = 20°16'26.85"(Lt)
 D = 26°36'16.66"
 R = 215.36'
 T = 38.51'
 L = 76.21'
 E = 3.42'
 SE = NC

ALL TOPOGRAPHY ON THIS SHEET DESCRIBED FROM LINE 'PR_A' UNLESS OTHERWISE NOTED. ALL R/W ON THIS SHEET DESCRIBED FROM LINE 'A' UNLESS OTHERWISE NOTED.



Note to Reviewer:
 Topo Notes have been Requested from the Surveyor

Note to Reviewer:
 Pavement Design will be per Approved Pavement Design. Subgrade Treatment will be per Geotechnical Report.



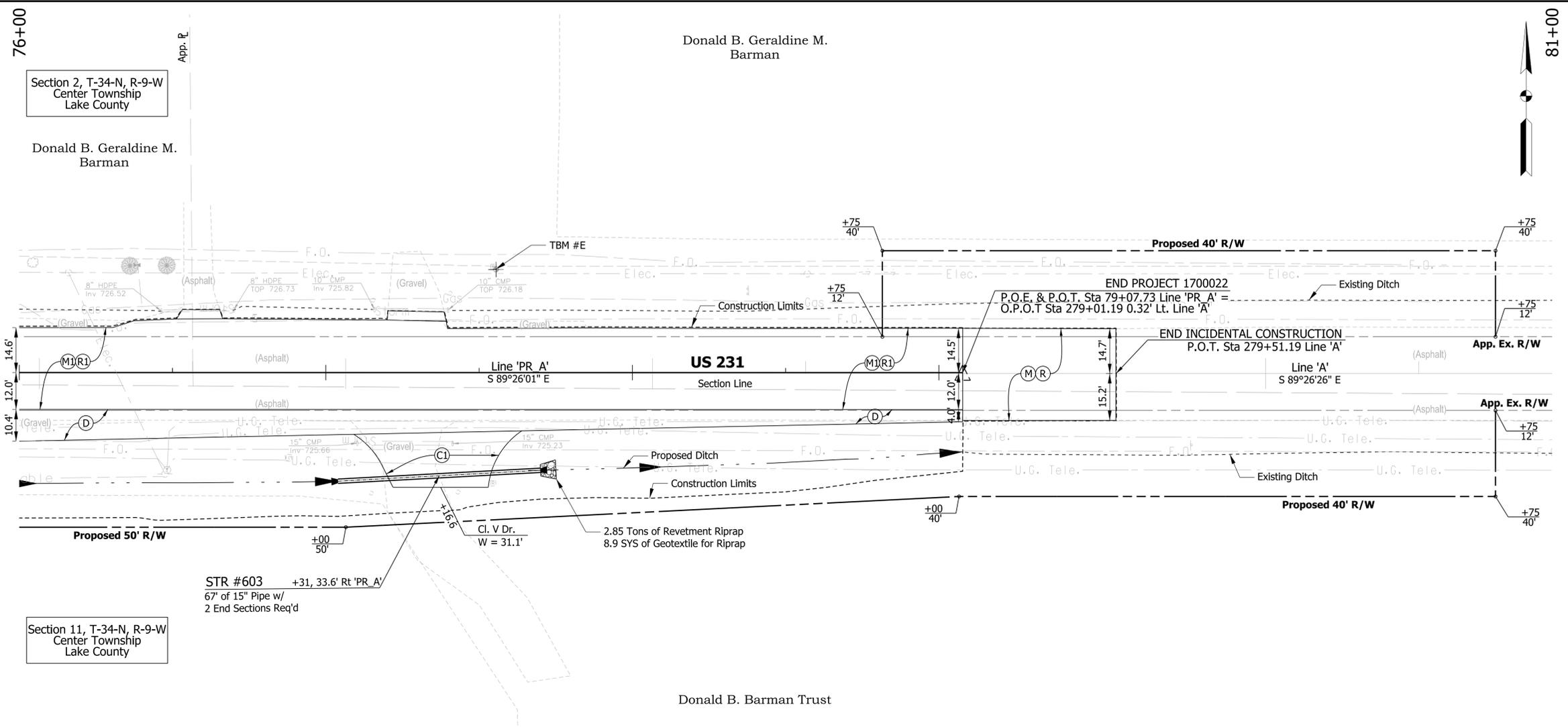
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| DESIGNED: PFR | DRAWN: PFR | |
| CHECKED: CLW | CHECKED: LRD | |

INDIANA DEPARTMENT OF TRANSPORTATION
 US 231 - CLINE AVE INTERSECTION IMPROVEMENT
 PLAN AND PROFILE LINE 'PR_A'

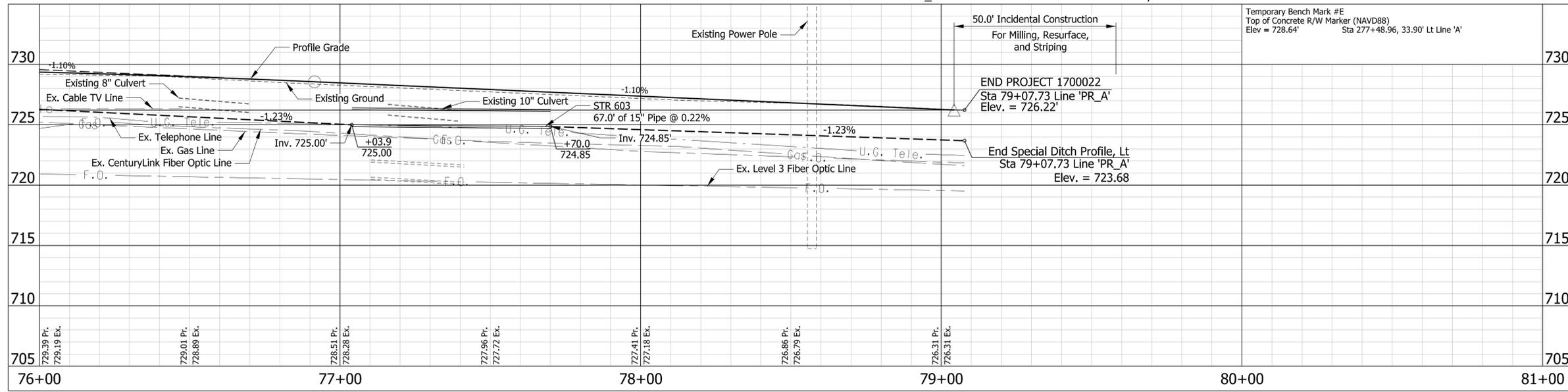
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| HORIZONTAL SCALE | FILE |
| 1" = 20' | |
| VERTICAL SCALE | DESIGNATION |
| 1" = 5' | 1700022 |
| SURVEY BOOK | SHEETS |
| | 10 of 42 |
| CONTRACT | PROJECT |
| R-42251 | 1700022 |

A.6: Stage 3 Design Plans



- LEGEND**
- (A) ___ in. PCCP (Colored), on ___ in. Compacted Aggregate No. ___, Subgrade Treatment, Type ___
 - (A1) ___ in. PCCP (Colored), on ___ in. Compacted Aggregate No. ___, on Subgrade Treatment, Type ___
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 - (C1) 6 in. Compacted Aggregate No. 53
 - (D) ___ lb/syd QC/QA HMA, ___ Surface, ___ mm, on ___ lb/syd QC/QA HMA, ___ Intermediate, ___ mm, on ___ lb/syd QC/QA HMA, ___ Intermediate, ___ mm, on ___ lb/syd QC/QA HMA, ___ Base, ___ mm, on Drainage Layer Consisting of: ___ lb/syd QC/QA HMA, ___ Intermediate, ___ mm-OG on Separation Layer Consisting of: ___ in. Compacted Aggregate No. ___, on Subgrade Treatment, Type IBC
 - (M) Asphalt Milling, ___ in.
 - (M1) Milling, Profile
 - (R) ___ lb/syd QC/QA HMA, ___ Surface ___ mm
 - (R1) ___ lb/syd QC/QA HMA, ___ Surface ___ mm, on ___ lb/syd QC/QA HMA, ___ Intermediate ___ mm
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 - (15) Curb and Gutter, B, Concrete, Modified (Inverted)
 - (18) Curb and Gutter, Turn Out Concrete
 - (26) Sodding on 4" of Topsoil
 - (28) Turf Reinforcement Mat

ALL TOPOGRAPHY ON THIS SHEET DESCRIBED FROM LINE 'PR_A' UNLESS OTHERWISE NOTED. ALL R/W ON THIS SHEET DESCRIBED FROM LINE 'A' UNLESS OTHERWISE NOTED.



Note to Reviewer:
Topo Notes have been Requested from the Surveyor

Note to Reviewer:
Pavement Design will be per Approved Pavement Design. Subgrade Treatment will be per Geotechnical Report.

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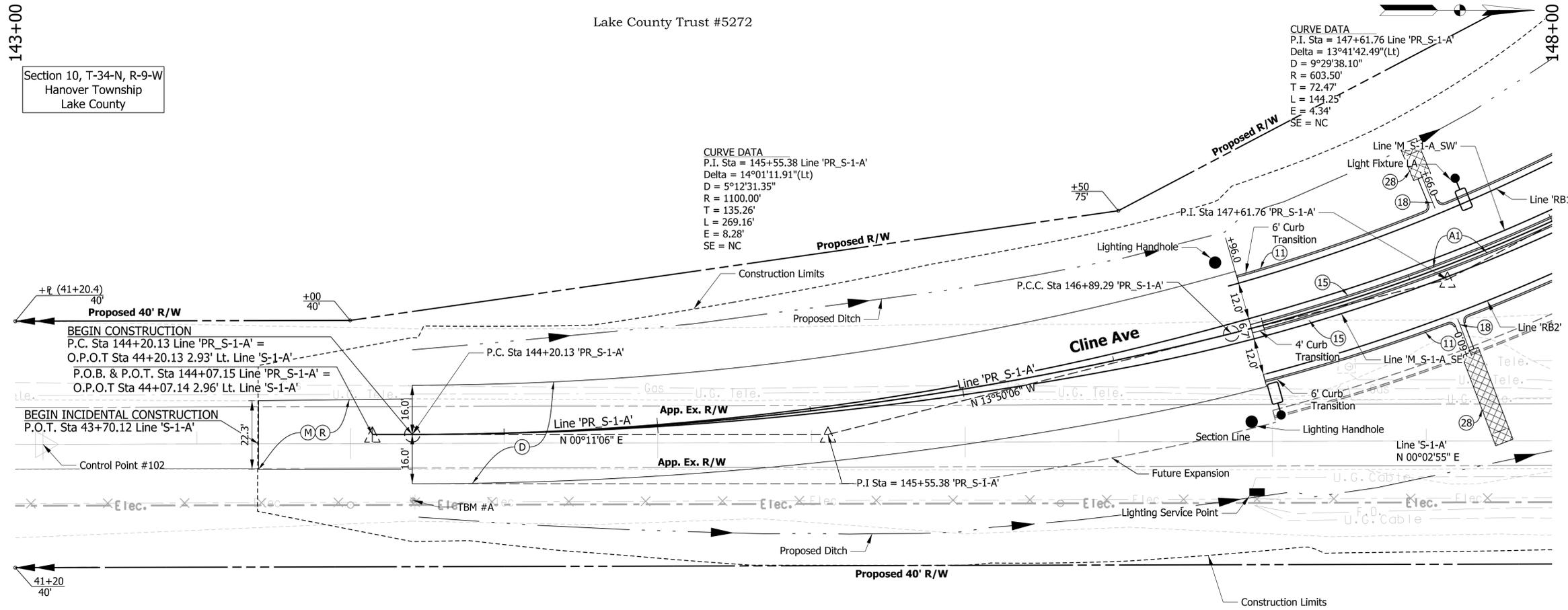
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DEPARTMENT OF TRANSPORTATION

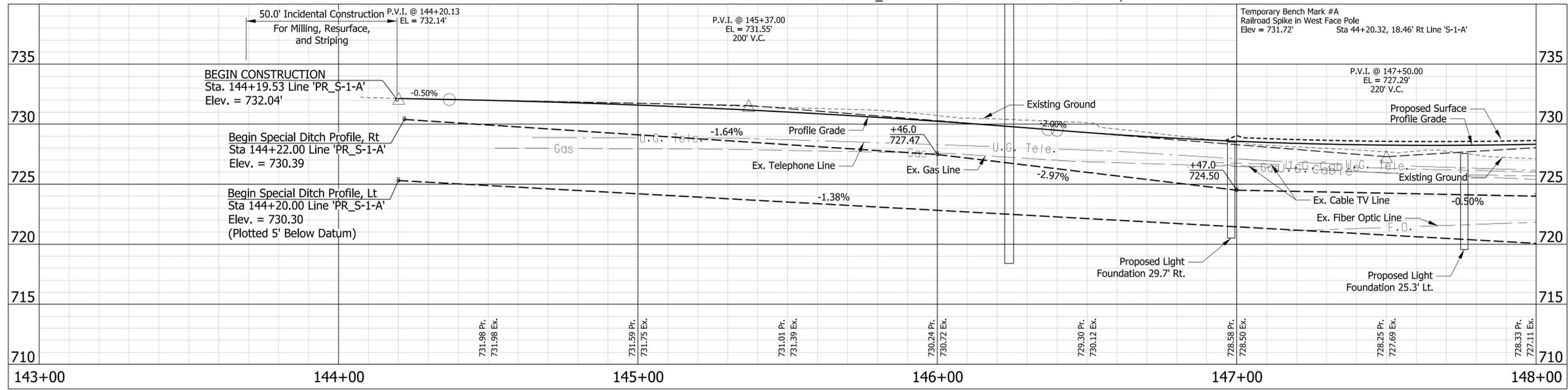
US 231 - CLINE AVE INTERSECTION IMPROVEMENT
PLAN AND PROFILE LINE 'PR_A'

| | |
|------------------|-------------|
| HORIZONTAL SCALE | FILE |
| 1" = 20' | |
| VERTICAL SCALE | DESIGNATION |
| 1" = 5' | 1700022 |
| SURVEY BOOK | SHEETS |
| | 12 of 42 |
| CONTRACT | PROJECT |
| R-42251 | 1700022 |

Lake County Trust #5272

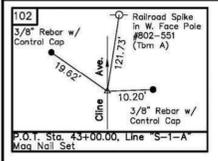


ALL TOPOGRAPHY ON THIS SHEET DESCRIBED FROM LINE 'PR_S-1-A' UNLESS OTHERWISE NOTED. ALL R/W ON THIS SHEET DESCRIBED FROM LINE 'S-1-A' UNLESS OTHERWISE NOTED.



Note to Reviewer:
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Note to Reviewer:
Pavement Design will be per Approved Pavement Design. Subgrade Treatment will be per Geotechnical Report.



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NOT FOR CONSTRUCTION
DATE: 3/28/2021

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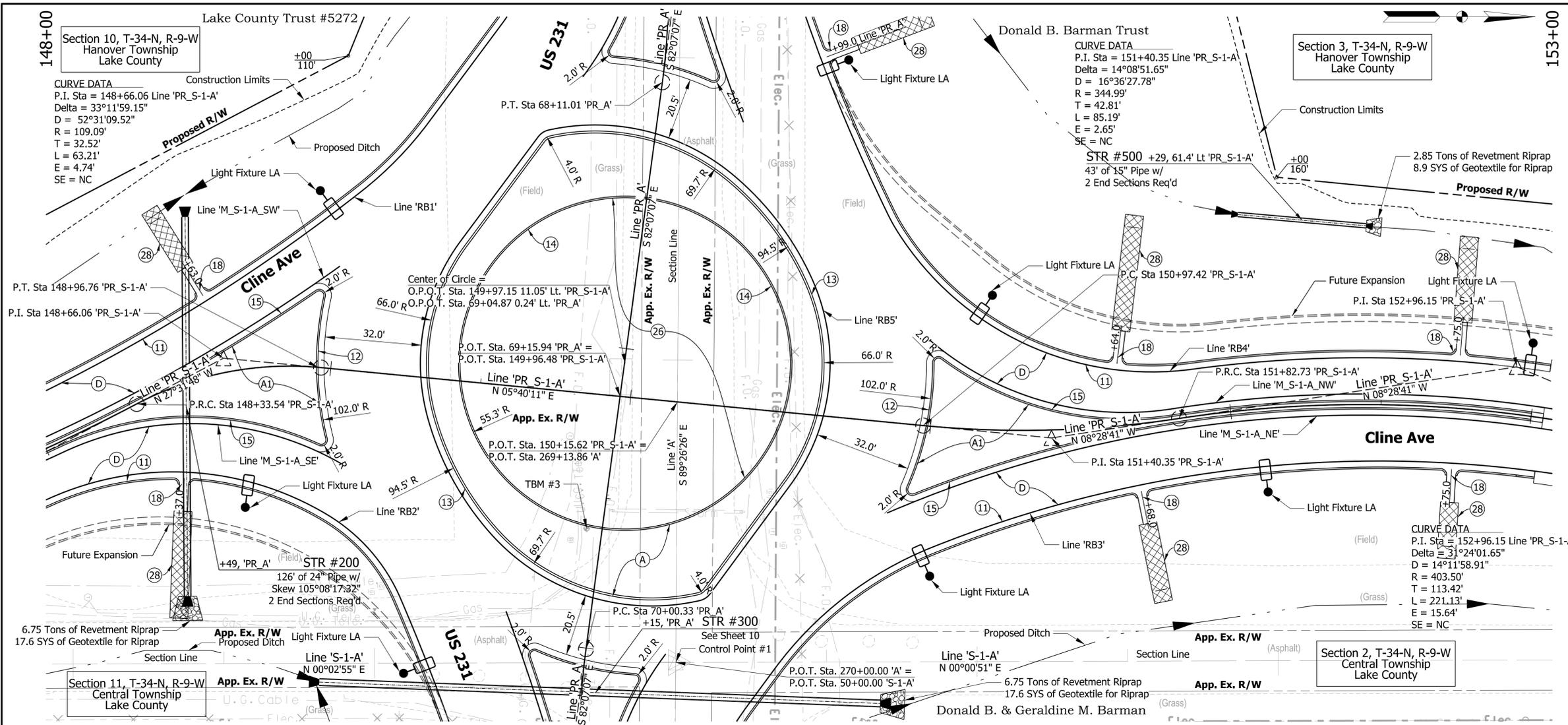
INDIANA
DEPARTMENT OF TRANSPORTATION

US 231 - CLINE AVE INTERSECTION IMPROVEMENT
PLAN AND PROFILE LINE 'PR_S-1-A'

| | |
|------------------|-------------|
| HORIZONTAL SCALE | FILE |
| 1" = 20' | |
| VERTICAL SCALE | DESIGNATION |
| 1" = 5' | 1700022 |
| SURVEY BOOK | SHEETS |
| | 13 of 42 |
| CONTRACT | PROJECT |
| R-42251 | 1700022 |

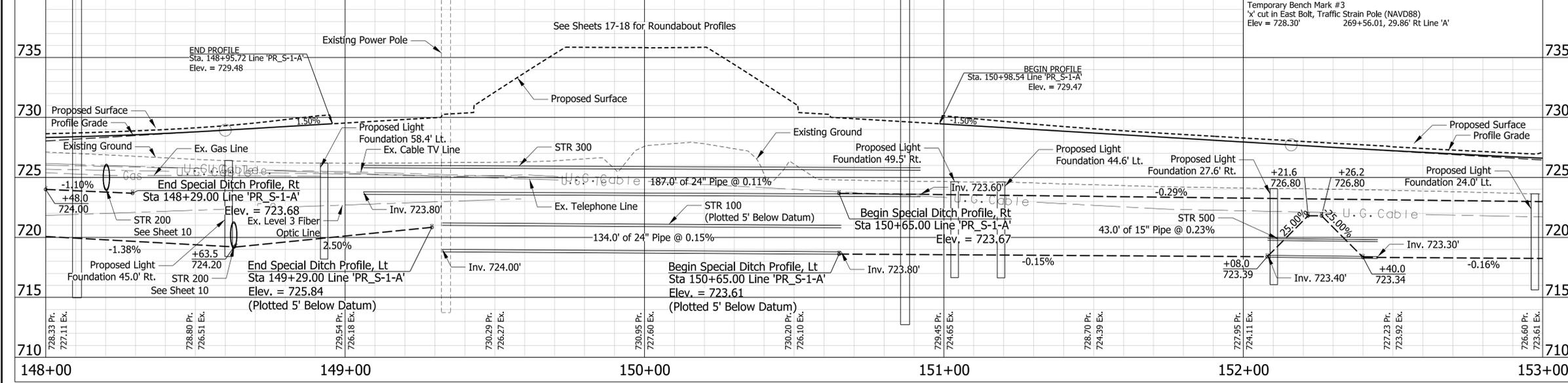
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A.6: Stage 3 Design Plans



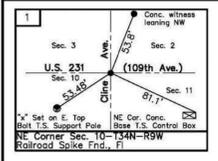
- LEGEND**
- (A) ___ in. PCCP (Colored), on ___ in. Compacted Aggregate No. ___, on Subgrade Treatment, Type ___
 - (A1) ___ in. PCCP (Colored), on ___ in. Compacted Aggregate No. ___, on Subgrade Treatment, Type ___
 - (C) HMA for Approaches, Type B, Consisting of: 165 lb/syd HMA Surface, on 275 lb/syd HMA Intermediate, on 6 in. Compacted Aggregate No. 53, on Subgrade Treatment Type II
 - (C1) 6 in. Compacted Aggregate No. 53
 - (D) ___ lb/syd QC/QA HMA, ___ Surface, ___ mm, on ___ lb/syd QC/QA HMA, ___ Intermediate, ___ mm, on ___ lb/syd QC/QA HMA, ___ Intermediate, ___ mm, on ___ lb/syd QC/QA HMA, ___ Base, ___ mm, on Drainage Layer Consisting of: ___ lb/syd QC/QA HMA, ___ Intermediate, ___ mm-OG on Separation Layer Consisting of: ___ in. Compacted Aggregate No. ___, on Subgrade Treatment, Type IBC
 - (M) Asphalt Milling, ___ in.
 - (M1) Milling, Profile
 - (R) ___ lb/syd QC/QA HMA, ___ Surface ___ mm
 - (R1) ___ lb/syd QC/QA HMA, ___ Surface ___ mm, on ___ lb/syd QC/QA HMA, ___ Intermediate ___ mm
 - (11) Curb and Gutter, Concrete
 - (12) Curb and Gutter, B, Concrete
 - (13) Curb and Gutter, B, Concrete, Modified (Inverted) (3")
 - (14) Curb, Integral, Concrete
 - (15) Curb and Gutter, B, Concrete, Modified (Inverted)
 - (18) Curb and Gutter, Turn Out Concrete
 - (26) Sodding on 4" of Topsoil
 - (28) Turf Reinforcement Mat

ALL TOPOGRAPHY ON THIS SHEET DESCRIBED FROM LINE 'PR_S-1-A' UNLESS OTHERWISE NOTED. ALL R/W ON THIS SHEET DESCRIBED FROM LINE 'S-1-A' UNLESS OTHERWISE NOTED.



Note to Reviewer:
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Note to Reviewer:
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PRELIMINARY
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DATE: 3/28/2021

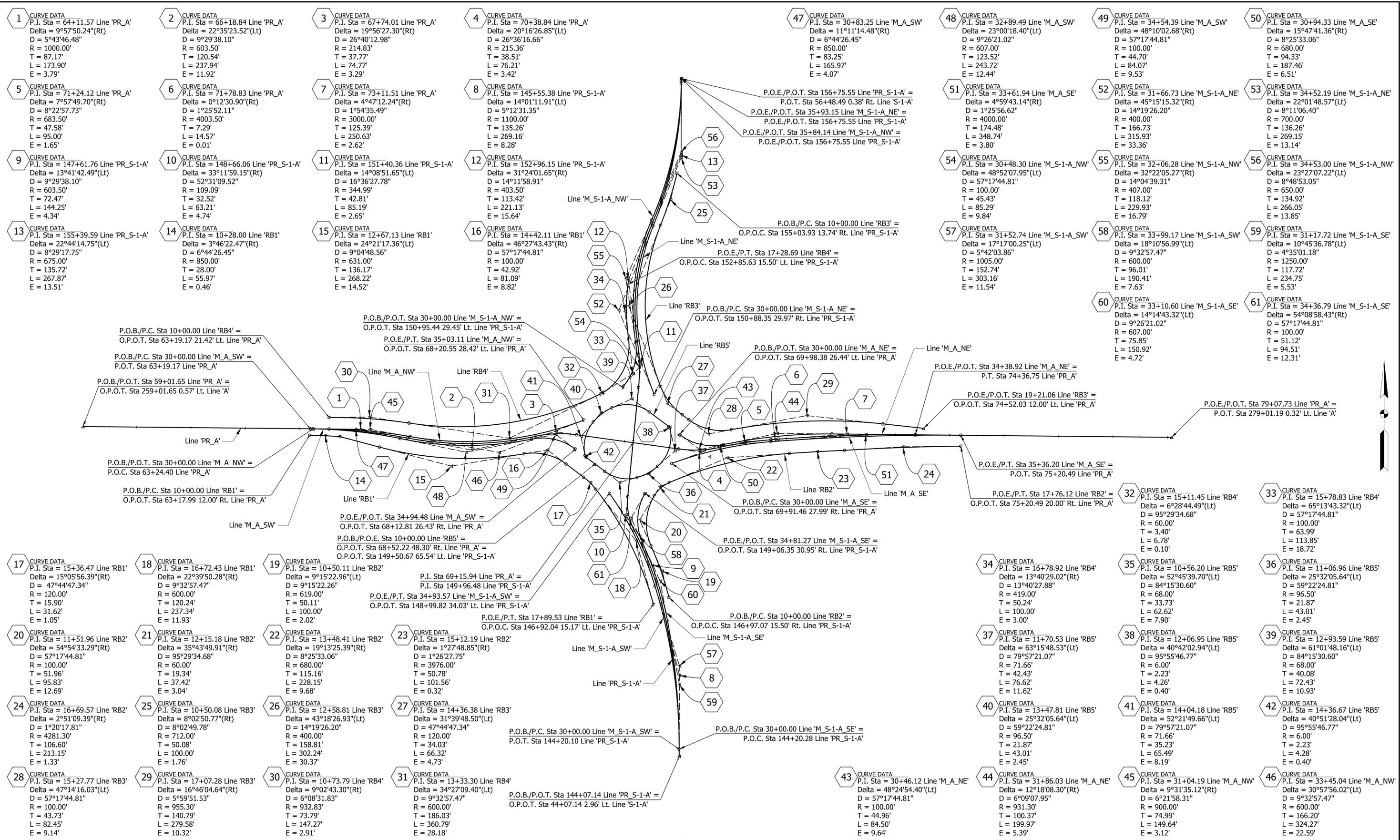
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| CHECKED: CLW | CHECKED: LRD | |

INDIANA DEPARTMENT OF TRANSPORTATION

US 231 - CLINE AVE INTERSECTION IMPROVEMENT
PLAN AND PROFILE LINE 'PR_S-1-A'

| | |
|------------------|-------------|
| HORIZONTAL SCALE | FILE |
| 1" = 20' | |
| VERTICAL SCALE | DESIGNATION |
| 1" = 5' | 1700022 |
| SURVEY BOOK | SHEETS |
| | 14 of 42 |
| CONTRACT | PROJECT |
| R-42251 | 1700022 |

A.6: Stage 3 Design Plans



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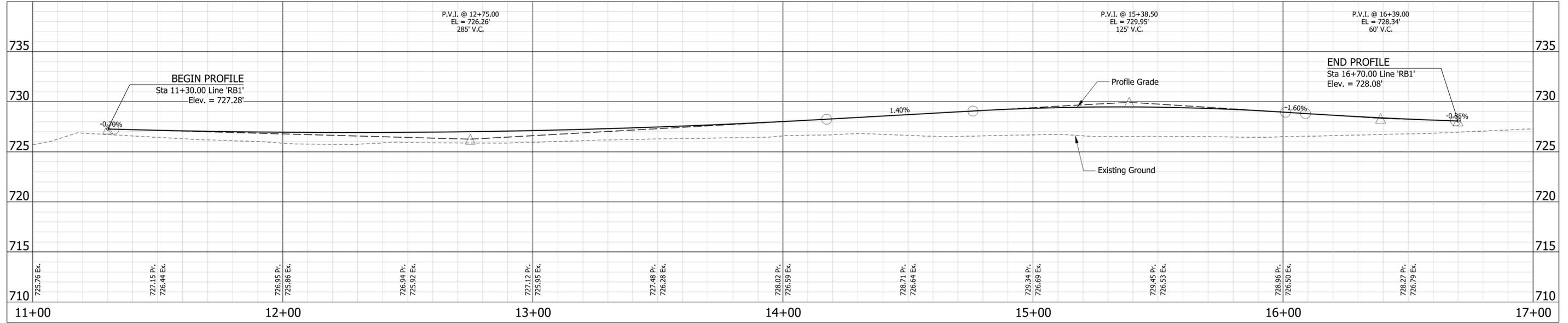
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INDIANA
DEPARTMENT OF TRANSPORTATION

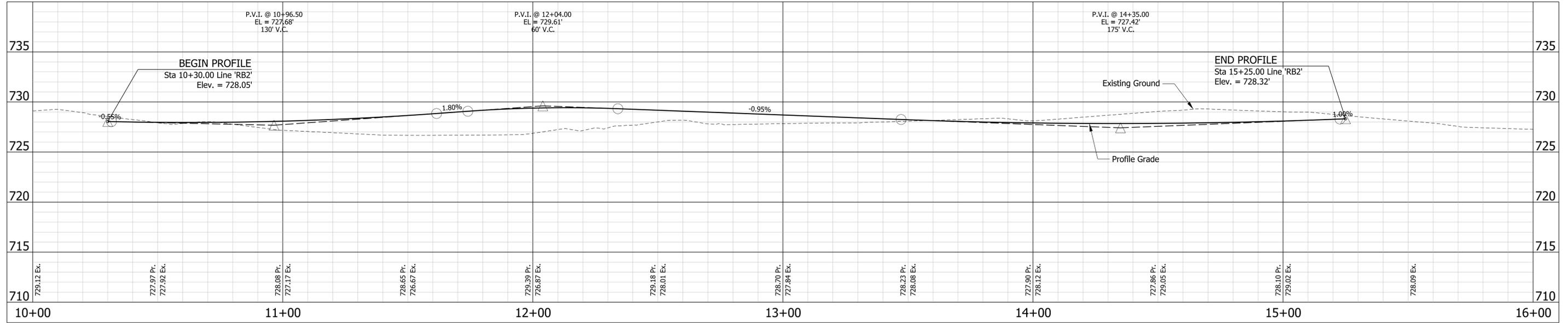
US 231 - CLINE AVE INTERSECTION IMPROVEMENT
GEOMETRIC LAYOUT

| | |
|------------------|-------------|
| HORIZONTAL SCALE | FILE |
| 1" = 80' | |
| VERTICAL SCALE | DESIGNATION |
| N/A | 1700022 |
| SURVEY BOOK | SHEETS |
| | 16 of 42 |
| CONTRACT | PROJECT |
| R-42251 | 1700022 |

PROFILE LINE 'RB1'



PROFILE LINE 'RB2'



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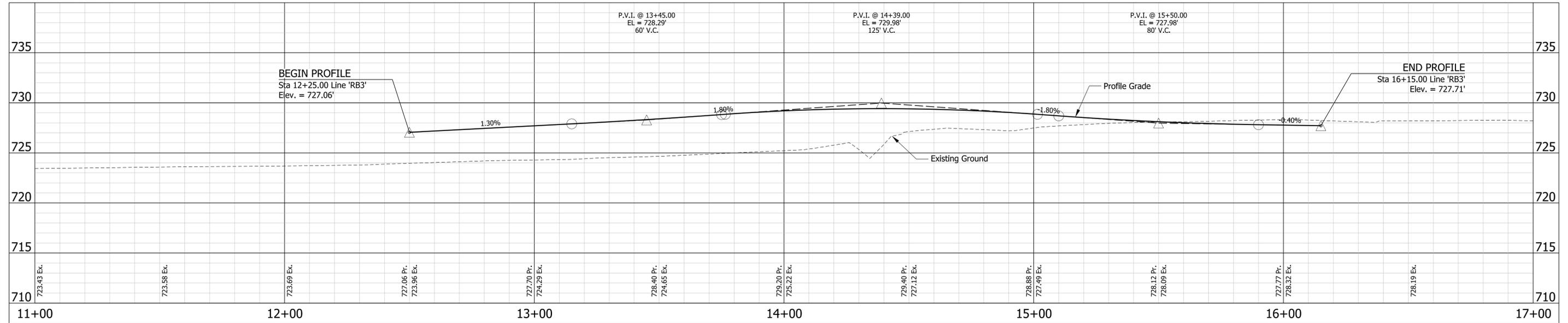
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| RECOMMENDED FOR APPROVAL | DESIGN ENGINEER | DATE |
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INDIANA
DEPARTMENT OF TRANSPORTATION

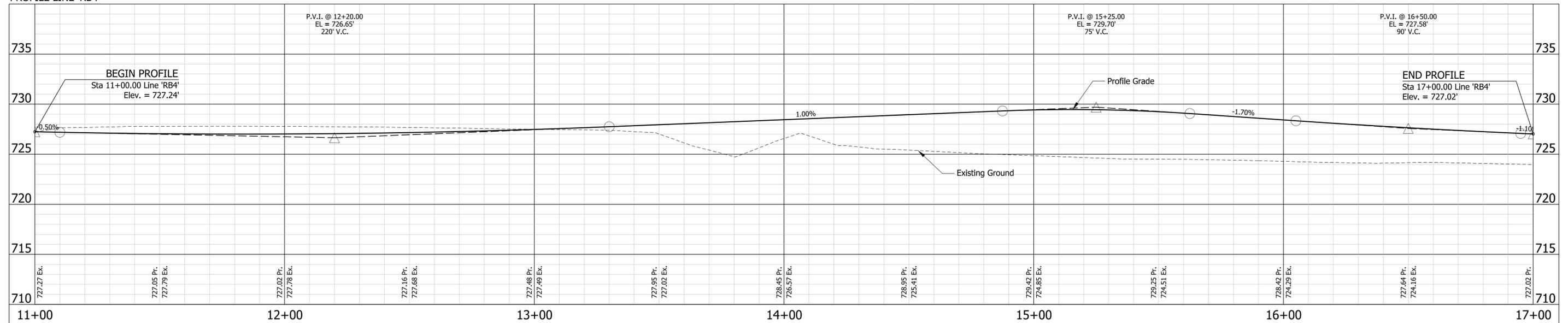
US 231 - CLINE AVE INTERSECTION IMPROVEMENT
PROFILES LINE 'RB1' AND LINE 'RB2'

| | |
|------------------|-------------|
| HORIZONTAL SCALE | FILE |
| 1" = 20' | |
| VERTICAL SCALE | DESIGNATION |
| 1" = 5' | 1700022 |
| SURVEY BOOK | SHEETS |
| | 17 of 42 |
| CONTRACT | PROJECT |
| R-42251 | 1700022 |

PROFILE LINE 'RB3'



PROFILE LINE 'RB4'



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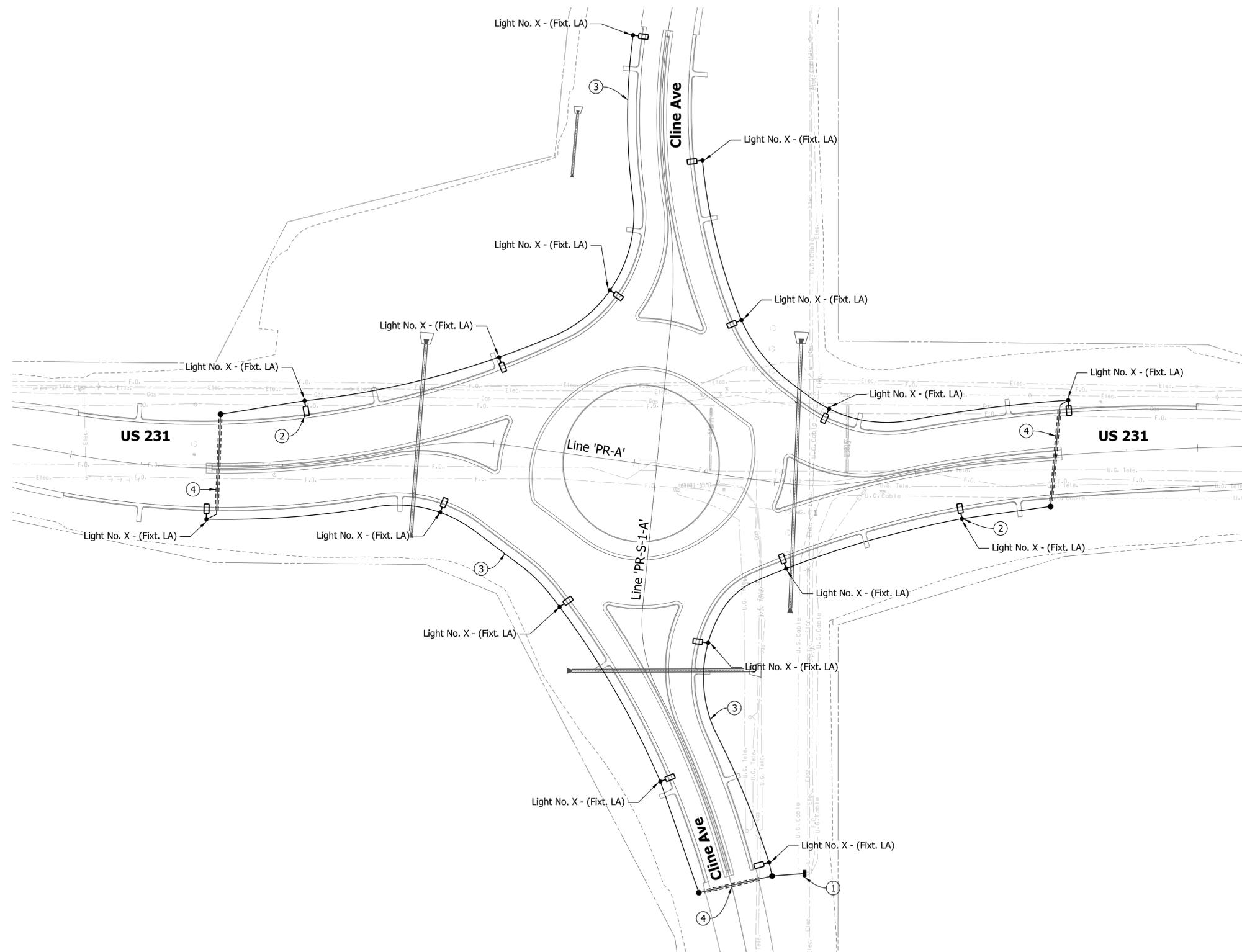
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NOT FOR CONSTRUCTION
DATE: 3/23/2021

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| RECOMMENDED FOR APPROVAL | DESIGN ENGINEER | DATE |
| DESIGNED: PFR | DRAWN: PFR | |
| CHECKED: CLW | CHECKED: LRD | |

INDIANA
DEPARTMENT OF TRANSPORTATION

US 231 - CLINE AVE INTERSECTION IMPROVEMENT
PROFILES LINE 'RB3' AND LINE 'RB4'

| | |
|------------------|-------------|
| HORIZONTAL SCALE | FILE |
| 1" = 20' | |
| VERTICAL SCALE | DESIGNATION |
| 1" = 5' | 1700022 |
| SURVEY BOOK | SHEETS |
| | 18 of 42 |
| CONTRACT | PROJECT |
| R-42251 | 1700022 |



KEYNOTES

- ① Electric Service Point Type I, 120/240V. Mount on Existing Utility Pole. Refer to INDOT Light Service Point Standard Drawings E807-LTSP.
- ② Roadway Light Fixture (Typ).
- ③ Cable Duct Wire #4 Cu in Plastic Duct 4-1/C (Typ).
- ④ Provide 3" Galvanized Rigid Conduit Sleeve Under Road for Cable Duct.

LEGEND

- ☐ LED Luminaire and Pole
- Service Point Type I
- Cable Duct Wire #4 Cu in Plastic Duct 4-1/C
- ≡≡≡ 3" Galvanized Rigid Conduit
- Handhole

LUMINAIRE STATISTICS

| AVERAGE | - | FC |
|---------|---|----|
| MINIMUM | - | FC |
| AVG/MIN | - | - |

Note to Reviewer:
 - Preliminary Lighting Design provided.
 - Final Lighting Design will be provided with the next submission.

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PRELIMINARY
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 DATE: 3/23/2021

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| RECOMMENDED FOR APPROVAL | DESIGN ENGINEER | DATE |
| DESIGNED: PFR | DRAWN: PFR | |
| CHECKED: CLW | CHECKED: LRD | |

INDIANA
 DEPARTMENT OF TRANSPORTATION

US 231 - CLINE AVE INTERSECTION IMPROVEMENT
 LIGHTING PLAN

| | |
|------------------|-------------|
| HORIZONTAL SCALE | FILE |
| 1" = 40' | |
| VERTICAL SCALE | DESIGNATION |
| N/A | 1700022 |
| SURVEY BOOK | SHEETS |
| | 19 of 42 |
| CONTRACT | PROJECT |
| R-42251 | 1700022 |

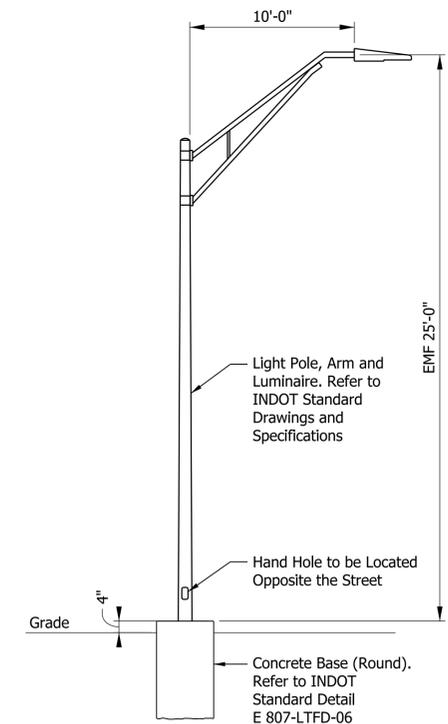
| LUMINAIRE AND POLE INFORMATION SCHEDULE | | | | | | | | | | | | | | | | |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| LUMINAIRE NO. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| CIRCUIT NO. | A-1 |
| CIRCUIT CONNECTION (R=RED, B=BLACK) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| CONNECTION TYPE (1, 2, 3) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| STATION | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| OFFSET SIDE | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| FOUNDATION SETBACK FROM FACE OF CURB | 6' | 6' | 6' | 6' | 6' | 6' | 6' | 6' | 6' | 6' | 6' | 6' | 6' | 6' | 6' | 6' |

* Coordinate with Gas Line

| SERVICE AMPERAGE TABLE | | | | | | | |
|------------------------|--------------|----------|--------------|---------|----------------------|----------------------------|------------------------|
| SERVICE POINT | SERVICE TYPE | VOLTAGE | MAIN BREAKER | CIRCUIT | BRANCH CIRCUIT COLOR | BRANCH CIRCUIT DESIGN LOAD | BRANCH CIRCUIT BREAKER |
| A | TYPE I | 120/240V | 100 AMP | A-1 | BLACK | - A | 30A |
| | | | | | RED | - A | 30A |

| LUMINAIRE DESIGN DATA TABLE | |
|--|----------------|
| LUMINAIRE STYLE | INDOT STANDARD |
| LAMP TYPE | - |
| DESIGN SAMPLE PHOTOMETRIC CURVE | - |
| NOMINAL MOUNTING HEIGHT (MH) | 25 |
| LUMINAIRE CLASSIFICATION (IES) | - |
| VOLTAGE | 120/240 V |
| LUMINAIRE LOAD OPERATING AMPS (VARIES DEPENDING ON MANUFACTURER) | - AMPS |
| INITIAL LAMP LUMENS (LL) | - K |
| DESIGN SOFTWARE | VISUAL |
| AVERAGE MAINTAINED ILLUMINATION (Eh) | - : 1 |
| | |
| | |

Note to Reviewer:
 - Preliminary Lighting Design provided.
 - Final Lighting Design will be provided with the next submission.



LIGHT POLE DETAIL

SCALE: Not to Scale

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PRELIMINARY
 NOT FOR CONSTRUCTION
 DATE: 3/23/2021

| | | |
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| RECOMMENDED FOR APPROVAL _____ | DESIGN ENGINEER _____ | DATE _____ |
| DESIGNED: PFR _____ | DRAWN: PFR _____ | |
| CHECKED: CLW _____ | CHECKED: LRD _____ | |

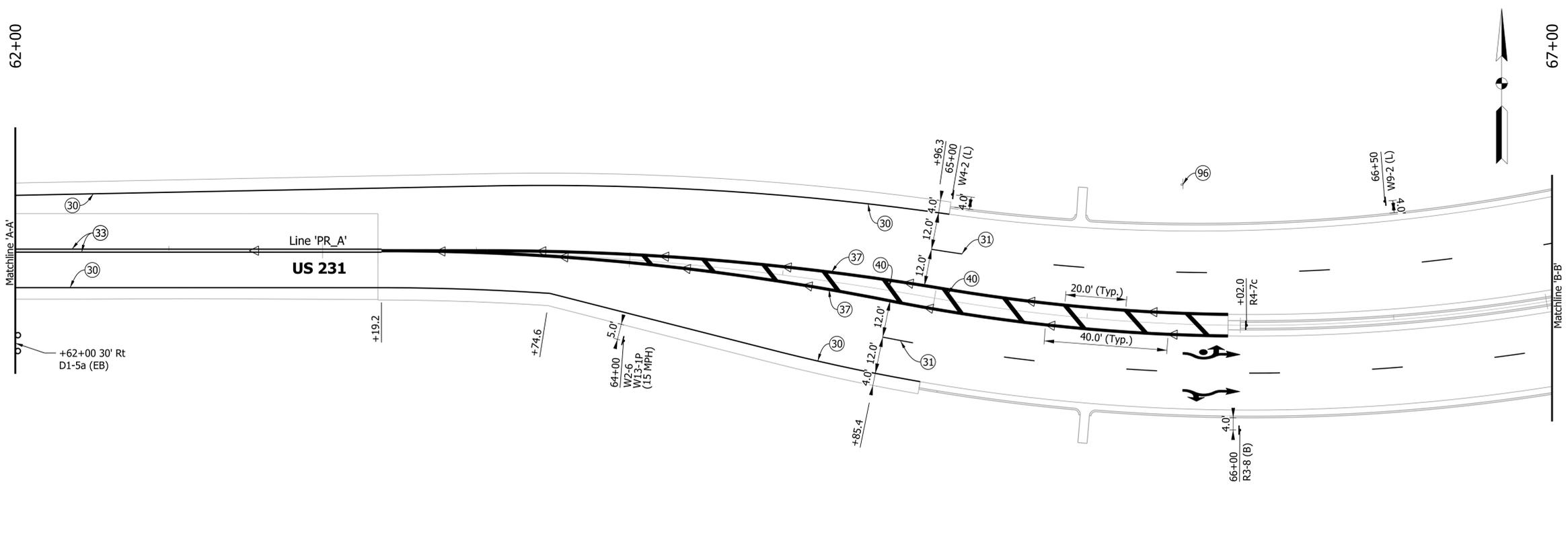
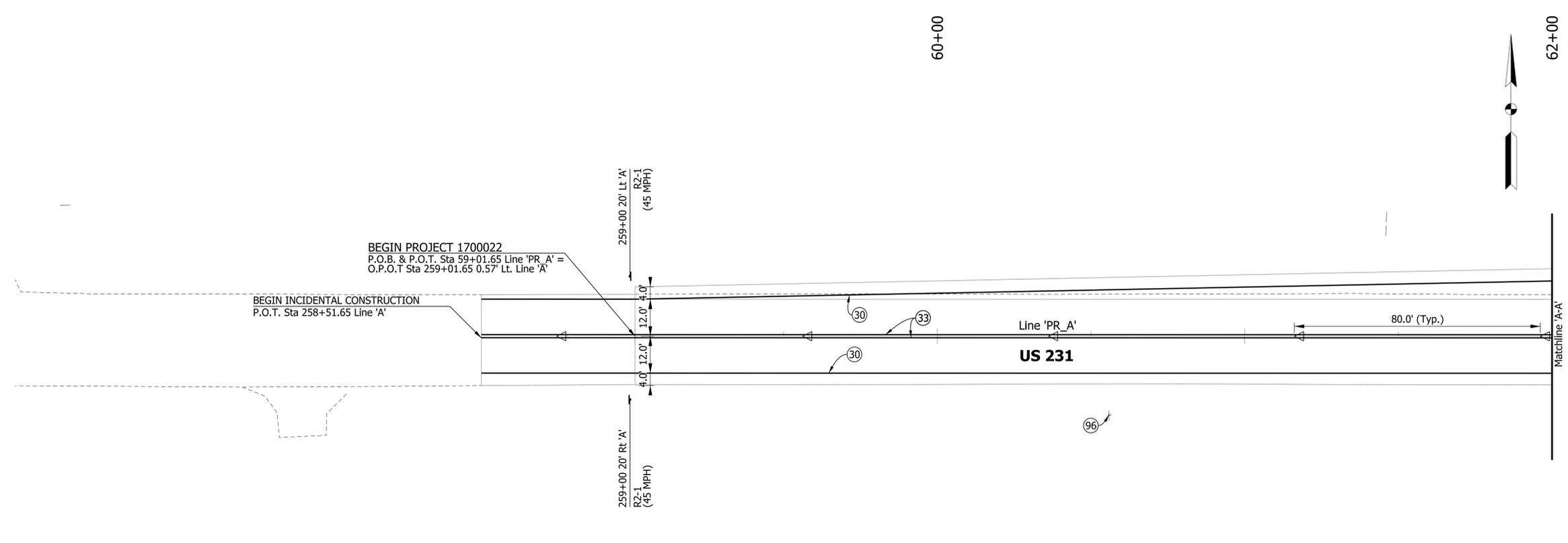
INDIANA
 DEPARTMENT OF TRANSPORTATION
 US 231 - CLINE AVE INTERSECTION IMPROVEMENT
 LIGHTING DETAILS

| | |
|------------------|-------------|
| HORIZONTAL SCALE | FILE |
| N/A | |
| VERTICAL SCALE | DESIGNATION |
| N/A | 1700022 |
| SURVEY BOOK | SHEETS |
| | 20 of 42 |
| CONTRACT | PROJECT |
| R-42251 | 1700022 |

A.6: Stage 3 Design Plans

LEGEND

- ③① Line, Multi-Component, Solid, White, 4 in.
- ③② Line, Multi-Component, Broken, White, 4 in.
- ③③ Line, Multi-Component, Dotted, White, 4 in.
- ③④ Line, Multi-Component, Solid, Yellow, 4 in.
- ③⑤ Line, Multi-Component, Dotted, White, 8 in.
- ③⑥ Line, Multi-Component, Solid, Yellow, 8 in.
- ④⑦ Transverse Marking, Thermoplastic, Crosshatch Line, Yellow, 12 in.
- ④⑧ Pavement Message Marking, Thermoplastic, Lane Indication Arrow
- ④⑨ Transverse Marking, Thermoplastic, Yield Line, White, 24 in.
- ④⑩ Sign, Remove
- ④⑪ Two-Way Yellow R.P.M.



| Sign | Description | Size |
|----------|-------------------------------------|--------------|
| D1-1d | Destination Sign (Cline Ave.) | * |
| D1-5a | Directional Panel Sign | * |
| M1-4 | U.S. Route Sign (231) | 30 x 24 |
| M3-1 | Cardinal Direction (North) | 24 x 12 |
| M3-3 | Cardinal Direction (South) | 24 x 12 |
| M6-2 | Directional Arrow (Diagonal) | 21 x 15 |
| R1-2 | Yield | 36 x 36 x 36 |
| R2-1 | Speed Limit | 24 x 30 |
| R3-8 (B) | Intersection Lane Control | 30 x 30 |
| R4-7 | Keep Right | 24 x 30 |
| R4-7c | Narrow Keep Right | 18 x 30 |
| R6-1 | One Way (Right) | 36 x 12 |
| R6-4a | Roundabout Directional (3 Chevrons) | 48 x 24 |
| W2-6 | Roundabout Warning | 30 x 30 |
| W4-2 | Lane Ends | 36 x 36 |
| W9-2 | Lane Ends Merge Left | 36 x 36 |
| W13-1P | Advisory Speed Plaque | 18 x 18 |

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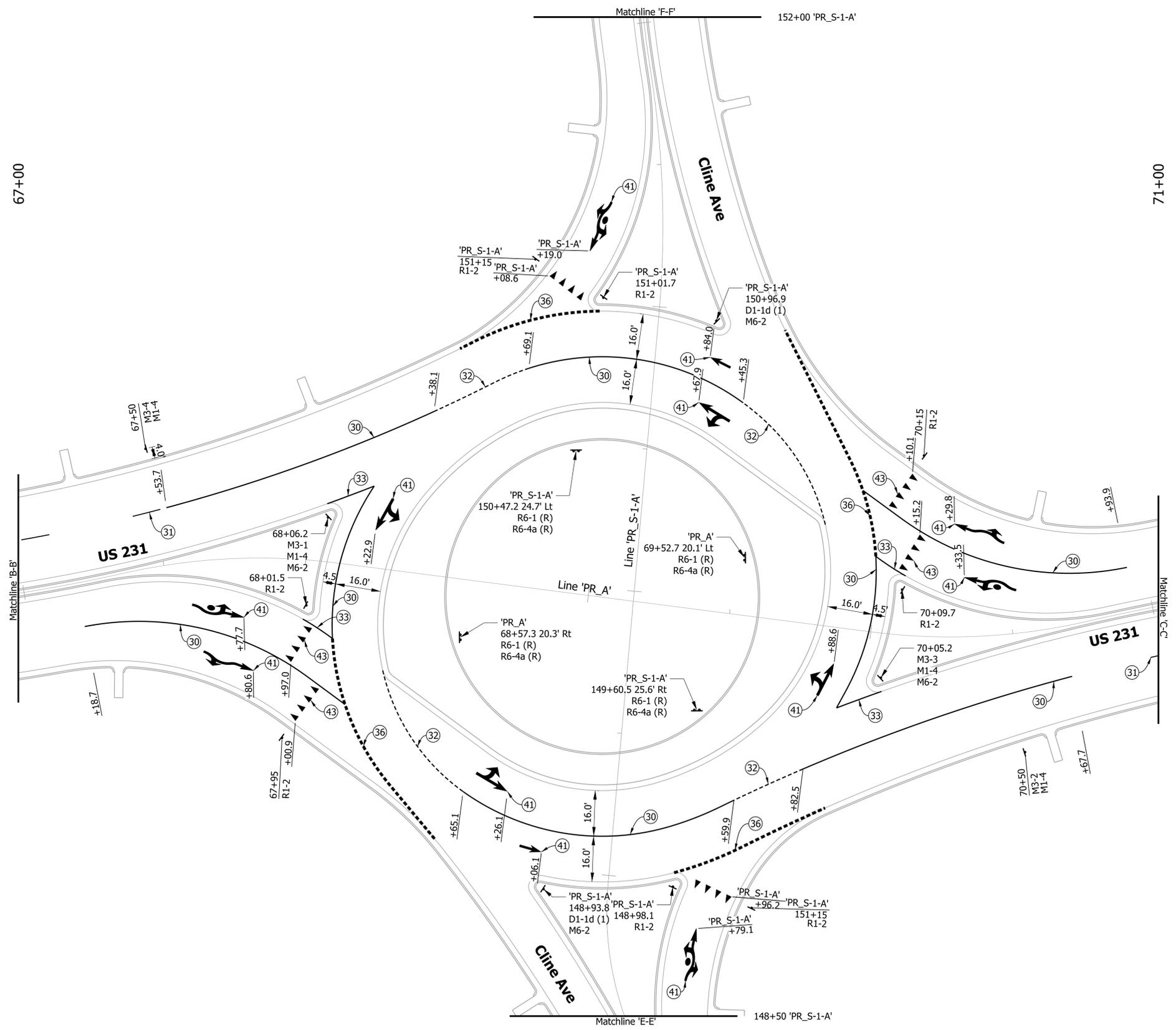
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NOT FOR CONSTRUCTION
DATE: 2/28/2021

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| RECOMMENDED FOR APPROVAL | DESIGN ENGINEER | DATE |
| DESIGNED: PFR | DRAWN: PFR | |
| CHECKED: CLW | CHECKED: LRD | |

INDIANA
DEPARTMENT OF TRANSPORTATION

US 231 - CLINE AVE INTERSECTION IMPROVEMENT
PAVEMENT MARKINGS AND SIGNAGE LINE 'PR_A'

| | |
|------------------|-------------|
| HORIZONTAL SCALE | FILE |
| 1" = 20' | |
| VERTICAL SCALE | DESIGNATION |
| N/A | 1700022 |
| SURVEY BOOK | SHEETS |
| | 21 of 42 |
| CONTRACT | PROJECT |
| R-42251 | 1700022 |



LEGEND

- ③① Line, Multi-Component, Solid, White, 4 in.
- ③② Line, Multi-Component, Broken, White, 4 in.
- ③③ Line, Multi-Component, Dotted, White, 4 in.
- ③④ Line, Multi-Component, Solid, Yellow, 4 in.
- ③⑤ Line, Multi-Component, Dotted, White, 8 in.
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- ④③ Transverse Marking, Thermoplastic, Yield Line, White, 24 in.
- ④④ Sign, Remove
- ④⑤ Two-Way Yellow R.P.M.

| Sign | Description | Size |
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| D1-1d | Destination Sign (Cline Ave.) | * |
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| M1-4 | U.S. Route Sign (231) | 30 x 24 |
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| M3-3 | Cardinal Direction (South) | 24 x 12 |
| M6-2 | Directional Arrow (Diagonal) | 21 x 15 |
| R1-2 | Yield | 36 x 36 x 36 |
| R2-1 | Speed Limit | 24 x 30 |
| R3-8 (B) | Intersection Lane Control | 30 x 30 |
| R4-7 | Keep Right | 24 x 30 |
| R4-7c | Narrow Keep Right | 18 x 30 |
| R6-1 | One Way (Right) | 36 x 12 |
| R6-4a | Roundabout Directional (3 Chevrons) | 48 x 24 |
| W2-6 | Roundabout Warning | 30 x 30 |
| W4-2 | Lane Ends | 36 x 36 |
| W9-2 | Lane Ends Merge Left | 36 x 36 |
| W13-1P | Advisory Speed Plaque | 18 x 18 |

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PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 2/28/2021

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| RECOMMENDED FOR APPROVAL | DESIGN ENGINEER | DATE |
| DESIGNED: PFR | DRAWN: PFR | |
| CHECKED: CLW | CHECKED: LRD | |

INDIANA
DEPARTMENT OF TRANSPORTATION

US 231 - CLINE AVE INTERSECTION IMPROVEMENT
PAVEMENT MARKINGS AND SIGNAGE LINE 'PR_A'

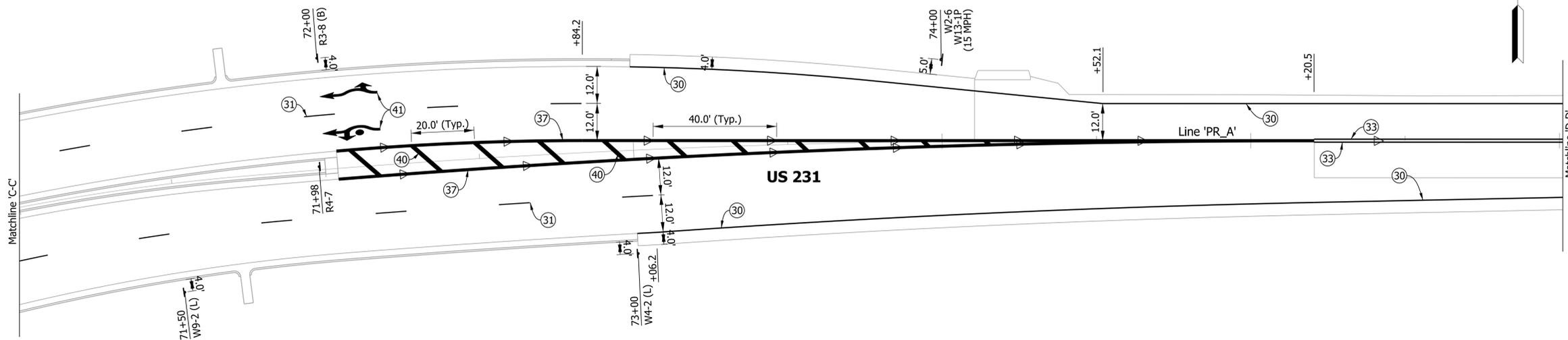
| | |
|------------------|-------------|
| HORIZONTAL SCALE | FILE |
| 1" = 20' | |
| VERTICAL SCALE | DESIGNATION |
| N/A | 1700022 |
| SURVEY BOOK | SHEETS |
| | 22 of 42 |
| CONTRACT | PROJECT |
| R-42251 | 1700022 |

LEGEND

- ③① Line, Multi-Component, Solid, White, 4 in.
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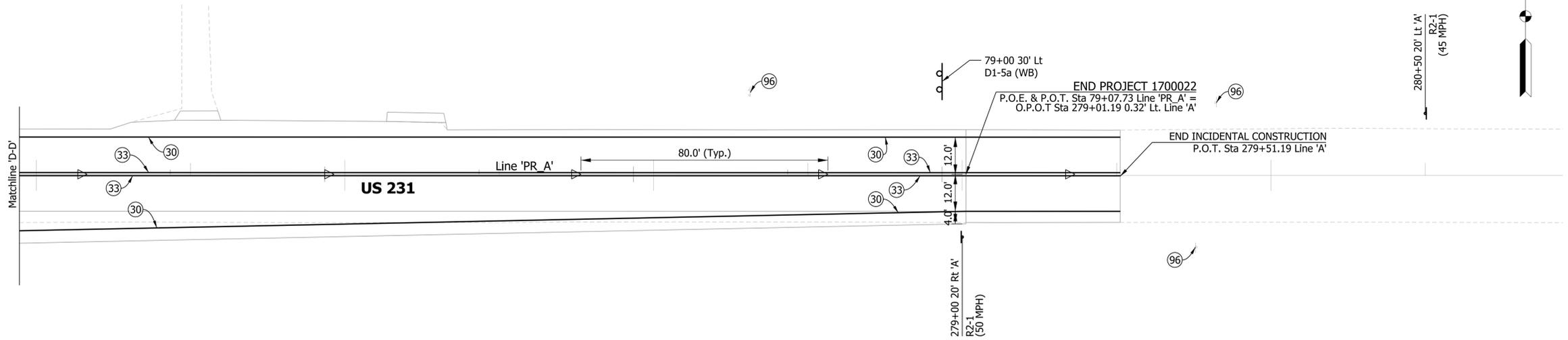
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| Sign | Description | Size |
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| W4-2 | Lane Ends | 36 x 36 |
| W9-2 | Lane Ends Merge Left | 36 x 36 |
| W13-1P | Advisory Speed Plaque | 18 x 18 |

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DATE: 2/28/2021

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| CHECKED: CLW | CHECKED: LRD | |

INDIANA
DEPARTMENT OF TRANSPORTATION

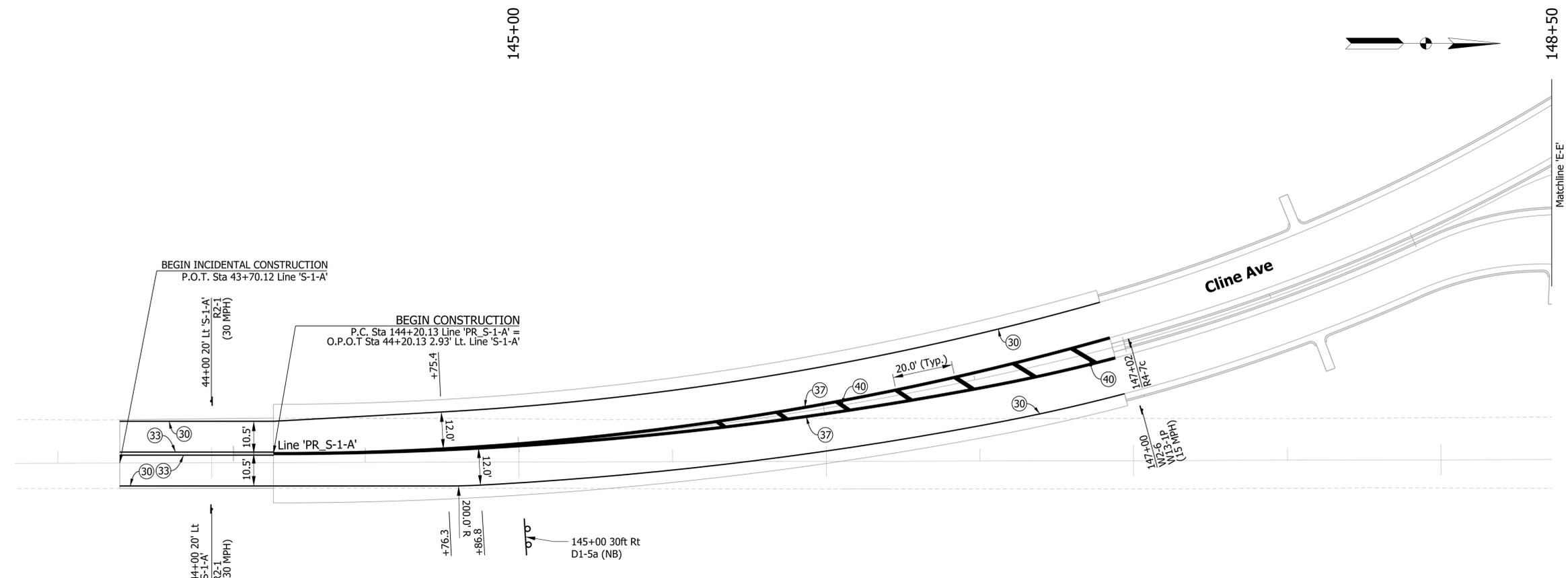
US 231 - CLINE AVE INTERSECTION IMPROVEMENT
PAVEMENT MARKINGS AND SIGNAGE LINE 'PR_A'

| | |
|------------------|-------------|
| HORIZONTAL SCALE | FILE |
| 1" = 20' | |
| VERTICAL SCALE | DESIGNATION |
| N/A | 1700022 |
| SURVEY BOOK | SHEETS |
| | 23 of 42 |
| CONTRACT | PROJECT |
| R-42251 | 1700022 |

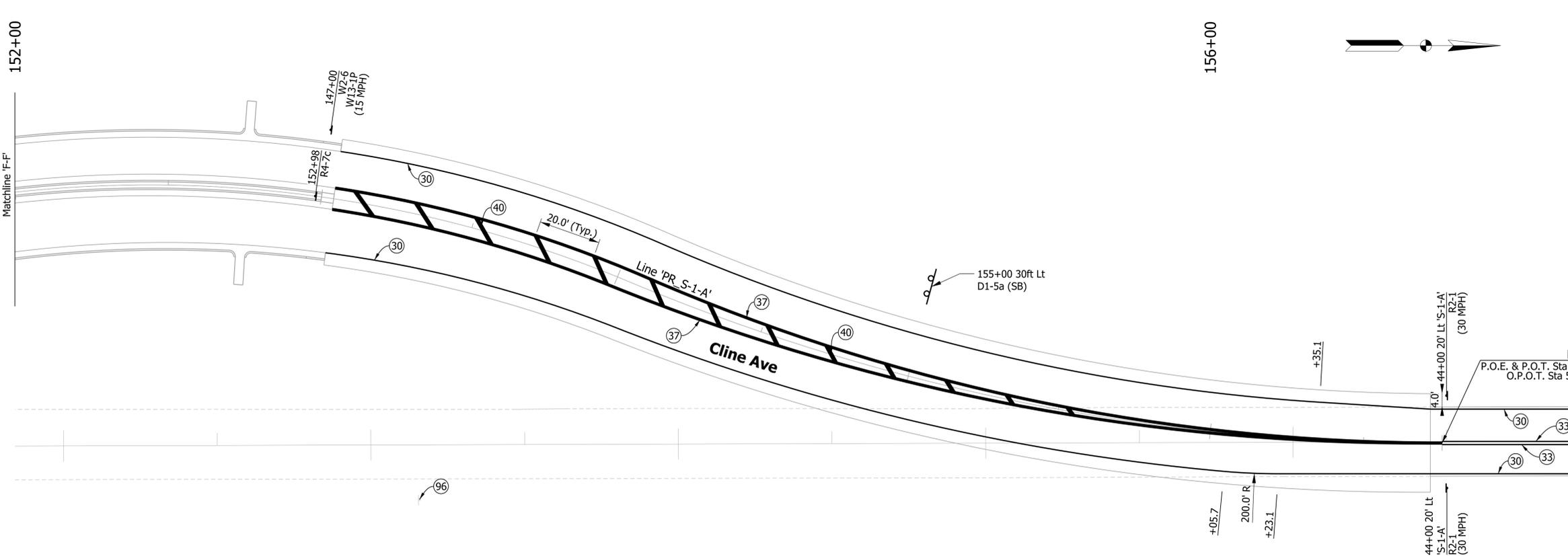
A.6: Stage 3 Design Plans

LEGEND

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| W13-1P | Advisory Speed Plaque | 18 x 18 |



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DATE: 2/28/2021

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| RECOMMENDED FOR APPROVAL | DESIGN ENGINEER | DATE |
| DESIGNED: PFR | DRAWN: PFR | |
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INDIANA
DEPARTMENT OF TRANSPORTATION

US 231 - CLINE AVE INTERSECTION IMPROVEMENT
PAVEMENT MARKINGS AND SIGNAGE LINE 'PR S-1-A'

| | |
|------------------|-------------|
| HORIZONTAL SCALE | FILE |
| 1" = 20' | |
| VERTICAL SCALE | DESIGNATION |
| N/A | 1700022 |
| SURVEY BOOK | SHEETS |
| | 24 of 42 |
| CONTRACT | PROJECT |
| R-42251 | 1700022 |

Historic Property Report

U.S. 231 and Cline Avenue
Intersection Improvement Project,
Hanover and Center Townships,
Lake County, Indiana

Des. No. 1700022

April 29, 2020



Appendix B

Report Abstracts and Conclusions

- B.1** **Historic Property Report**
- B.2** **Phase Ia Archaeological Report**

Management Summary

This report documents the identification and evaluation efforts for properties included in the Area of Potential Effects (APE) for the planned improvements to the intersection of U.S. 231 and Cline Avenue in Lake County, Indiana (Des. No. 1700022). Aboveground resources located within the project APE were identified and evaluated in accordance with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, and the regulations implementing Section 106 (36 CFR Part 800).

In accordance with the NHPA, as amended, and 36 CFR Part 800, federal agencies are required to take into account the impact of federal undertakings upon historic properties in the area of the undertaking. Historic properties include buildings, structures, sites, objects, and/or districts that are eligible for or listed in the National Register of Historic Places (NRHP). As this project is receiving funding from the Federal Highway Administration (FHWA), it is subject to a Section 106 review.

The APE contains no properties listed in the NRHP.

The APE contains no properties that are recommended eligible for listing in the NRHP.

6 Conclusions

The APE contains no properties listed in the NRHP.

As a result of identification and evaluation efforts for this project, no properties are recommended for listing in the NRHP.

Phase Ia Archaeological Records Review and Reconnaissance

US 231 Intersection Improvement
Project in Lake County, Indiana

Des. No. 1700022



Executive Summary

The Troyer Group, Inc. (Troyer Group) contacted Cardno, Inc. (Cardno) to conduct a Phase Ia archaeological records review and reconnaissance (Phase Ia) for the proposed improvements at the intersection of US 231 and Cline Avenue within Mishawaka, Lake County, Indiana (INDOT Des No. 1700022). The project is located in Sections 2, 3, 10, and 11, Township 34 North, Range 9 West on the Saint John, Indiana USGS 7.5' topographic map quadrangle. The proposed project will involve the reconstruction of the intersection at US 231 and Cline Avenue. The proposed plan is to replace the four-way-intersection with a roundabout and would also include pavement resurfacing, relocating utilities, and possible pavement coring. The project area consists of US 231 and Cline Avenue right of way as well as crop agricultural fields, maintained lawns, driveways, utility corridors, and roadside drainage ditches. Based on provided information, the proposed project area measures approximately 6.2 hectares (ha) (15.3 acres [ac]).

Research within 1.6 kilometer (km) (1 mi) of the proposed project area revealed four previously recorded archaeological sites and five IHSSI recorded structures. No National Register of Historic Places (NRHP)-listed resources were located in the 1.6 km (1 mi) study area.

Fieldwork took place on 25 June, 2019. Cardno returned on 4 December, 2019 to survey an added portion of the project area. As a result of the Phase Ia investigation, two new archaeological sites (12La0727, 12La0728) were identified in the project area; both consist of historic artifact scatters. Based on the results of field reconnaissance and archival research, the archaeological sites identified within the project area, as currently defined, are recommended not eligible for the NRHP and Cardno recommends no further archaeological investigation for the project to proceed as planned.

5 Conclusions and Recommendations

The project is located in Sections 2, 3, 10, and 11, Township 34 North, Range 9 West on the Saint John, Indiana USGS 7.5' topographic map quadrangle (see Figure 1). The proposed project would reconstruct the intersection of US 31 and Cline Avenue (INDOT Des. No. 1700022). The proposed project area measures approximately 6.2 hectares (ha) (15.3 acres [ac]). The goal of this survey was to identify cultural resources that may be affected by the proposed project.

The records on file at the IDNR-DHPA indicate that there are four archaeological sites and five IHSSI structures within the 1.6 km (1 mi) study area. Of the five IHSSI structures, one is located immediately adjacent to the project area. Barman Farm is listed with an IHSSI rating of "Contributing," indicating that it is not individually eligible for the NRHP (IHSSI 089-565-75008). No archaeological sites were recorded within the project area prior to this study. Cardno surveyed the proposed area that will be impacted by the US 231/Cline Avenue reconstruction project on 25 June, 2019. Cardno returned on 4 December, 2019 to survey an addition to the project area. Approximately 6.2 ha (15.3 ac) were surveyed within the proposed project area through a combination of systematic shovel testing and pedestrian survey. During the field survey of this project area, Cardno identified two new archaeological sites, 12La0727 and 12La0728, both of which consist of historic artifact scatters. Based on the data collected during this investigation, the sites are not eligible for the NRHP and no further archaeological work is recommended. If project plans should change, then further archaeological work may be necessary to fully delineate the sites and reassess their NRHP eligibility.

If archaeological artifacts or human remains are identified during project activities in any location, work within 30m (100 ft) of the discovery must stop and the Indiana Department of Transportation – Cultural Resources Office (INDOT-CRO) must be contacted immediately. INDOT-CRO will notify the Indiana Department of Natural Resources – Division of Historic Preservation and Archaeology within two (2) business days pursuant to Indiana Code 14-21-1.

Appendix C

Consulting Parties

- C.1 Consulting Party Summary Table**
- C.2 Consulting Party Correspondence**
 - C.2.1 Consulting Party Early Coordination Letter**
 - Early Coordination Email; non-tribal consulting parties*
 - Early Coordination Email; tribal consulting parties*
 - C.2.2 Consulting Party Responses, Early Coordination Letter**
 - Indiana Landmarks*
 - Pokagon Band of Potawatomi*
 - IN SHPO*
 - C.2.3 Report Distribution Letter**
 - Report Distribution Email; non-tribal consulting parties*
 - Report Distribution Email; tribal consulting parties*
 - C.2.4 Consulting Party Responses, Report Distribution Letter**
 - IN SHPO*
 - Indiana Landmarks*
 - C.2.5 Interim Effects Letter**
 - Interim Effects Letter Distribution Email; non-tribal consulting parties*
 - Interim Effects Letter Distribution Email; tribal consulting parties*
 - C.2.6 Consulting Party Responses, Interim Effects Letter**
 - Indiana Landmarks*
 - Donald Barman*
 - IN SHPO*
 - Pokagon Band of Potawatomi*

C1: Consulting Party Summary Table

| NAME | Title | Organization | ADDRESS | CITY/ STATE/ ZIP | E-MAIL | PHONE | Consulting Party Status |
|-------------------|-----------------------------------|---|---|-----------------------------|--|----------------|-------------------------|
| Ty Warner | NIRPC Executive Director | Northwestern Indiana Regional Planning Commission (NIRPC) | 6100 Southport Road | Portage, IN 46368 | nirpc@nirpc.org | (219) 763-6060 | |
| Chad Slider | Director for Environmental Review | State Historic Preservation Office | 402 W. Washington Street Room W274 | Indianapolis, IN 46204 | cslider@dnr.in.gov | (317) 234-5366 | Consulting Party |
| Brad Miller | Director | Indiana Landmarks Northwest Field Office | 541 South Lake Street | Gary-Miller Beach, IN 46403 | bmiller@indianalandmarks.org | 219.947.2657 | Consulting Party |
| Pat Mitchell | | Northwestern Indiana Genealogical Society | P.O. Box 595 | Griffith, IN 46319 | president@nwigs.org | | |
| Bill Emerson Jr. | | Lake County Surveyor | 2293 North Main Street | Crown Point, IN 46307 | | 219.755.3745 | |
| Bruce L. Woods | | Lake County Historian | LCHS, Courthouse Square, Suite 25 | Crown Point, IN 46307 | bwoods_mhs@yahoo.com | 219.662.3975 | |
| Jerry Tippy | | Lake County Commissioner | 2293 North Main Street | Crown Point, IN 46307 | | 219.755.3120 | |
| Michael C. Repay | | Lake County Commissioner | 2293 North Main Street | Crown Point, IN 46307 | mcrepay@comcast.net | 219.306.7562 | |
| Kyle Allen | | Lake County Commissioner | 2293 North Main Street | Crown Point, IN 46307 | | 219.755.3204 | |
| Jan Smoljan | | Lake County Highway Superintendent | 1100 E. Monitor Street | Crown Point, IN 46307 | smoljjs@lakecountyin.org | 219.663.0525 | |
| Duane A. Alverson | | Lake County Engineer | 1100 E. Monitor Street | Crown Point, IN 46307 | alverda@lakecountyin.org | 219.663.0525 | |
| Dave Fritz | President | South Lake County Agricultural Historical Society | P.O. Box 847 | Crown Point, IN 46308-0847 | | | |
| Marlene Polster | County Genealogist | Lake County Genealogical Society | 1437 West 97th Avenue | Crown Point, IN 46307 | lakecogen@sbcglobal.net | 219.776.4997 | |
| THPO | THPO | Eastern Shawnee Tribe of Oklahoma | 70500 East 128 Road | Wyandotte, OK 74370 | | | |
| THPO | THPO | Forest County Potawatomi Community | P.O. Box 340 | Crandon, WI 54520 | | | |
| THPO | THPO | Miami Tribe of Oklahoma | P.O. Box 1326 | Miami, OK 74355 | | | |
| THPO | THPO | Peoria Tribe of Indians of Oklahoma | 118 South Eight Tribes Trail, PO Box 1527 | Miami, OK 74355 | | | |
| THPO | THPO | Pokagon Band of Potawatomi Indians | 58620 Sink Road, PO Box 180 | Dowagiac, MI 49047 | | | Consulting Party |
| Donald Barman | Property Owner | John Barman Farm | 7910 W 109th Ave | Crown Point, IN 46307 | | | Consulting Party |



INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N642
Indianapolis, Indiana 46204

PHONE: (317) 234-5168

Eric Holcomb, Governor
Joe McGuinness, Commissioner

July 19, 2019

This letter was sent to the listed parties.

RE: US 231 Intersection Improvement Project in Hanover and Center Townships, Lake County, Indiana (Des. No. 1700022)

Dear Consulting Party (see attached list),

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration, proposes to proceed with the US 231 Intersection Improvement Project in Lake County, Indiana (Des. No. 1700022). Cardno is under contract with Troyer Group on behalf of INDOT to advance the environmental documentation for the referenced project.

This letter is part of the early coordination phase of the environmental review process requesting comments associated with this project. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. Please use the above Des. Number and project description in your reply and your comments will be incorporated into the formal environmental study.

The proposed undertaking is on US 231 at the intersection of Cline Avenue in Lake County, Indiana. It is within Hanover and Center townships, on the Saint John, Indiana 7.5' USGS Topographic Quadrangle, in Sections 2, 3, 10, and 11, Township 34 North, Range 9 West.

This project is needed because the existing intersection lacks turn lanes on the approaches, which leads to vehicle queue delays, left-turn crashes, and rear-end crashes, according to data provided by the LaPorte District from October 2012 through September 2015. These single-lane approaches have shoulders that are used as a passing blister, which in turn causes confusion for opposing left-turning vehicles. Levels of Service (LOS) were analyzed as part of the Engineering Report for this project for the peak travel time of 4pm. East bound traffic experiences a LOS rating of B for left turns and through traffic, and an A for right turns. West bound traffic experiences a LOS rating of C for left turns, B for through traffic, and A for right turns. North bound traffic experiences a LOS rating of D for left turns and C for through traffic, and finally, south bound traffic experiences a LOS rating of C for both left turns and through traffic. The project purpose is to address the operation of the intersection and/or reduce the number of left turn and rear end crashes by minimizing the potential for crashes.

The project will consist of reconstructing the intersection as a roundabout and would eliminate the left-turn crashes since the roundabout would remove left turning movements. This would also decrease the amount of rear-end crashes with the reduction of vehicle-queue lengths (delays), and with improved markings and signage required in advance of the roundabout. The current design includes a two-lane roundabout, resulting in a

reduction of vehicle-queue lengths on U.S. 231 to 170 ft. and 75 ft. for east-and west-bound traffic, respectively.

This project is expected to require approximately 3.2 acres of additional permanent right-of-way and 0.10 acre of temporary right-of-way. This increase excludes reacquisition of existing right-of-way in non-platted areas.

Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic and archaeological properties. In accordance with 36 CFR 800.2 (c), you are hereby requested to be a consulting party to participate in the Section 106 process. Entities that have been invited to participate in the Section 106 consultation process for this project are identified in the attached list. Per 36 CFR 800.3(f), we hereby request that the Indiana State Historic Preservation Officer (SHPO) notify this office if the SHPO staff is aware of any other parties that may be entitled to be consulting parties or should be contacted as potential consulting parties for the project.

The Section 106 process involves efforts to identify historic properties potentially affected by the undertaking, assess its effects and seek ways to avoid, minimize or mitigate any adverse effects on historic properties. For more information regarding the protection of historic resources, please see the Advisory Council on Historic Preservation's guide: *Protecting Historic Properties: A Citizen's Guide to Section 106 Review* available online at <https://www.achp.gov/sites/default/files/documents/2017-01/CitizenGuide.pdf>.

The Area of Potential Effects (APE) is the area in which the proposed project may cause alterations in the character or use of historic resources. At this time, no cultural resource investigations have occurred; however, the results of cultural resource identification and evaluation efforts, both above-ground and archaeological, will be forthcoming. Consulting parties will receive notification when these reports are completed.

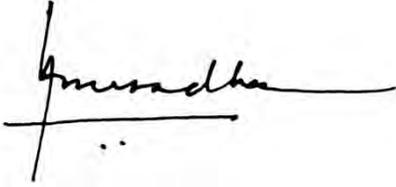
Please review the information and comment within thirty (30) calendar days of receipt. If you indicate that you do not desire to be a consulting party, or if you do not respond, you will not be included on the list of consulting parties for this project. If we do not receive your response in the time allotted, the project will proceed consistent with the proposed design and you will not receive further information about the project unless the design changes.

For questions concerning specific project details, you may contact Veronica Parsell of Cardno at 317-388-1982 or Veronica.parsell@cardno.com. All future responses regarding the proposed project should be forwarded to Cardno at the following address:

Veronica Parsell
Senior Project Scientist/ Archaeologist
Cardno
3901 Industrial Boulevard, Indianapolis, Indiana 46254
veronica.parsell@cardno.com.

Tribal contacts may contact Shaun Miller at smiller@indot.in.gov or 317-233-6795 or Michelle Allen at FHWA at michelle.allen@dot.gov or 317-226-7344.

Sincerely,



Anuradha V. Kumar, Manager
Cultural Resources Office
Environmental Services

Enclosures:

~~Topographic map showing project area~~

This Figure has been removed for brevity.

Distribution List:

Northwestern Indiana Regional Planning Commission
State Historic Preservation Office
Indiana Landmarks Northwest Field Office
Northwestern Indiana Genealogical Society
Lake County Surveyor
Lake County Historian
Lake County Commissioners
Lake County Highway Superintendent
Lake County Engineer
South Lake County Agricultural Historical Society
Lake County Genealogical Society
Eastern Shawnee Tribe of Oklahoma
Forest County Potawatomi Community
Miami Tribe of Oklahoma
Peoria Tribe of Indians of Oklahoma
Pokagon Band of Potawatomi Indians

From: Veronica Parsell

Sent: Friday, July 19, 2019 1:57 PM

To: mcrepay@comcast.net; nirpc@nirpc.org; cslider@dnr.in.gov; bmiller@indianalandmarks.org; president@nwigs.org; bwoods_mhs@yahoo.com; smoljjs@lakecountyin.org; alverda@lakecountyin.org; lakecogen@sbcglobal.net

Cc: Alexander, Kelyn <KAlexander3@indot.IN.gov>

Subject: FHWA Project: Des. No. 1700022; US 231 Intersection Improvement Project in Lake County, Indiana

Des. No.: 1700022

Project Description: US 231 Intersection Improvement Project

Location: US 231 & Cline Avenue in Hanover and Center townships, Lake County, Indiana.

The Indiana Department of Transportation, with funding from the Federal Highway Administration, proposes to proceed with the US 231 Intersection Improvement Project in Lake County, Indiana (Des. No. 1700022).

Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties. The following agencies/individuals are being invited to become consulting parties:

Northwestern Indiana Regional Planning Commission
State Historic Preservation Office
Indiana Landmarks Northwest Field Office
Northwestern Indiana Genealogical Society
Lake County Surveyor
Lake County Historian
Lake County Commissioners
Lake County Highway Superintendent
Lake County Engineer
South Lake County Agricultural Historical Society
Lake County Genealogical Society
Eastern Shawnee Tribe of Oklahoma
Forest County Potawatomi Community
Miami Tribe of Oklahoma
Peoria Tribe of Indians of Oklahoma
Pokagon Band of Potawatomi Indians

This letter is part of the early coordination phase of the environmental review process requesting comments associated with this project. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. Please use the above Des. Number and project description in your reply and your comments will be incorporated into the formal environmental study.

Please review the attached letter, which is also located in IN SCOPE at <http://erms.indot.in.gov/Section106Documents/> (the Des. No. is the most efficient search term, once in IN SCOPE), and respond with your comments on any historic resource impacts incurred as a result of this project so that an environmental report can be completed. We also welcome your related opinions and

other input to be considered in the preparation of the environmental document. If a hard copy of the materials is needed, please respond to this email with your request within seven (7) days.

Consulting parties have thirty (30) calendar days from receipt of this information to review and provide comments. If we do not receive a response from an invited consulting party within the time allotted, the project will proceed consistent with the proposed design. **Therefore, if we do not receive a response within thirty (30) days, your agency or organization will not receive any further information on the project unless the scope of work changes.**

Tribal contacts may contact Shaun Miller at smiller@indot.in.gov or 317-233-6795 or Michelle Allen at FHWA at michelle.allen@dot.gov or 317-226-7344.

Thank you in advance for your input,

Veronica Parsell MA, RPA

SR PROJECT SCIENTIST | ARCHAEOLOGIST
CARDNO



Direct +1 317 388 1982 Mobile +1 574 229 8747
Address 3901 Industrial Boulevard, Indianapolis, IN 46254
Email veronica.parsell@cardno.com Web www.cardno.com

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From: Alexander, Kelyn <KAlexander3@indot.IN.gov>
Sent: Friday, July 19, 2019 2:07 PM
To: thpo@estoo.net; lpappenfort@peoriatribe.com; Matthew.Bussler@pokagonband-nsn.gov; dhunter@miamination.com; michael.laronge@fcpotawatomi-nsn.gov
Cc: Veronica Parsell <Veronica.Parsell@cardno.com>; Miller, Shaun (INDOT) <smiller@indot.IN.gov>; michelle.allen@dot.gov; Branigin, Susan <SBranigin@indot.IN.gov>; Kumar, Anuradha <akumar@indot.IN.gov>; Vale, Lisa M <LVale@indot.IN.gov>; Crutchfield, Brett <BCrutchfield@indot.IN.gov>
Subject: FHWA Project: Des. No. 1700022; US 231 Intersection Improvement Project in Lake County, Indiana

Des. No.: 1700022

Project Description: US 231 Intersection Improvement Project

Location: US 231 & Cline Avenue in Hanover and Center townships, Lake County, Indiana.

The Indiana Department of Transportation, with funding from the Federal Highway Administration, proposes to proceed with the US 231 Intersection Improvement Project in Lake County, Indiana (Des. No. 1700022).

Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties. The following agencies/individuals are being invited to become consulting parties:

Northwestern Indiana Regional Planning Commission
State Historic Preservation Office
Indiana Landmarks Northwest Field Office
Northwestern Indiana Genealogical Society
Lake County Surveyor
Lake County Historian
Lake County Commissioners
Lake County Highway Superintendent
Lake County Engineer
South Lake County Agricultural Historical Society
Lake County Genealogical Society
Eastern Shawnee Tribe of Oklahoma
Forest County Potawatomi Community
Miami Tribe of Oklahoma
Peoria Tribe of Indians of Oklahoma
Pokagon Band of Potawatomi Indians

This letter is part of the early coordination phase of the environmental review process requesting comments associated with this project. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. Please use the above Des. Number and project description in your reply and your comments will be incorporated into the formal environmental study.

Please review the attached letter, which is also located in IN SCOPE at <http://erms.indot.in.gov/Section106Documents/> (the Des. No. is the most efficient search term, once in

IN SCOPE), and respond with your comments on any historic resource impacts incurred as a result of this project so that an environmental report can be completed. We also welcome your related opinions and other input to be considered in the preparation of the environmental document. If a hard copy of the materials is needed, please respond to this email with your request within seven (7) days.

Consulting parties have thirty (30) calendar days from receipt of this information to review and provide comments. If we do not receive a response from an invited consulting party within the time allotted, the project will proceed consistent with the proposed design. **Therefore, if we do not receive a response within thirty (30) days, your agency or organization will not receive any further information on the project unless the scope of work changes.**

Tribal contacts may contact Shaun Miller at smiller@indot.in.gov or 317-233-6795 or Michelle Allen at FHWA at michelle.allen@dot.gov or 317-226-7344.

Thank you in advance for your input,

Kelyn Alexander

Historian

Cultural Resources Office

Environmental Services

100 N. Senate Ave., Room N642

Indianapolis, IN 46204

Office: (317) 234-4147

Email: kalexander3@indot.in.gov



**** Historic Property Report (HPR) guidelines can be found [here](#)**



INDIANA LANDMARKS

Northwest Field Office

541 South Lake Street, Gary, IN 46403

219 947 2657 / 800 450 4534 / www.indianalandmarks.org

July 19, 2019

Vernoica Parsell
Senior Project Scientist/Archaeologist
Cardno
3901 Industrial Boulevard
Indianapolis, IN 46254

RE: Des. No. 1700022; US 231 Intersection Improvement Project in Hanover and Center Township, Lake County, Indiana

Dear Ms. Parsell,

Thank you for the invitation to review the proposed US 231 Intersection Improvement Project in Hanover and Center Township, Lake County, Indiana. I have reviewed the brief description of the project and surveyed cultural resources within the estimated Area of Potential Effects (APE). The only above-ground resource in this area is the John Barman Farm (IHSSI #089-565-75008).

The Indiana Historic Sites and Structures Inventory rated the property as a contributing resource and reports the farmstead dates to the mid-19th Century with a main farmhouse built in two parts and numerous contributing outbuildings. The Barman Farm is also designated as a Hoosier Homestead by the Indiana State Department of Agriculture with a founding date of 1852. Given this information, I would expect to find a closer evaluation of the Barman Farm in the cultural resources investigation and an assessment of how the proposed work would impact this resource.

These comments are based on my review of the information provided in the Early Coordination Letter provided by INDOT. If there is further information that can be provided, please let me know so that I can reassess my comments.

If you have any questions please feel free to contact me by phone or email at (219) 947-2657 or bmiller@indianalandmarks.org.

Sincerely,

A handwritten signature in black ink, appearing to read 'Brad Miller', is written over a light blue circular stamp.

Brad Miller, Director
Northwest Field Office



Pokégnek Bodéwadmik • Pokagon Band of Potawatomi
Department of Language and Culture

59291 Indian Lake Road • Dowagiac, MI 49047 • www.PokagonBand-nsn.gov
(269) 462-4316 • (269) 782-2499 fax

7/26/2019

Shaun Miller
INDOT
Phone: 317-233-6795
Email: smiller@indot.in.gov

FHWA Project: Des. No. 1700022; US 231 Intersection Improvement Project in Lake County, Indiana

Dear Responsible Party:

Migwethh for contacting me regarding these projects. As THPO, I am responsible for handling Section 106 Consultations on behalf of the tribe. I am writing to inform you that after reviewing the details for the project referenced above, I have made the determination that there will be **No Historic Properties in Area of Potential Effects (APE)** significant to the Pokagon Band of Potawatomi Indians. However, if any archaeological resources are uncovered during this undertaking, please stop work and contact me immediately. Should you have any other questions, please don't hesitate to contact me at your earliest convenience.

Sincerely,

Matthew J.N. Bussler
Tribal Historic Preservation Officer
Pokagon Band of Potawatomi Indians
Office: (269) 462-4316
Cell: (269) 519-0838
Matthew.Bussler@Pokagonband-nsn.gov

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Indiana Department
of Natural Resources

Eric Holcomb, Governor
Cameron F. Clark, Director

Division of Historic Preservation & Archaeology · 402 W. Washington Street, W274 · Indianapolis, IN 46204-2739
Phone 317-232-1646 · Fax 317-232-0693 · dhpa@dnr.IN.gov · www.IN.gov/dnr/historic



August 16, 2019

Veronica Parsell
Senior Project Scientist/Archaeologist
Cardno
3901 Industrial Boulevard
Indianapolis, Indiana 46254

Federal Agency: Indiana Department of Transportation ("INDOT"),
on behalf of Federal Highway Administration, Indiana Division ("FHWA")

Re: Early coordination letter for the US 231 Intersection Improvement Project at Cline Avenue
(construction of a roundabout), west of the City of Crown Point, in Hanover and Center
townships of Lake County, Indiana (Des. No. 1700022; DHPA No. 24150)

Dear Ms. Parsell:

Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. § 306108), 36 C.F.R. Part 800, and the "Programmatic Agreement (PA) Among the Federal Highway Administration, the Indiana Department of Transportation, the Advisory Council on Historic Preservation and the Indiana State Historic Preservation Officer Regarding the Implementation of the Federal Aid Highway Program In the State of Indiana," the staff of the Indiana State Historic Preservation Officer ("Indiana SHPO" or "INDNR-DHPA") has reviewed INDOT's July 19, 2019, early coordination letter, which we received on July 22, 2019.

We are not aware of any parties who should be invited to participate in the Section 106 consultation on this federal undertaking, beyond those whom INDOT already has invited.

We note that the project is expected to require the acquisition of 3.2 acres of additional permanent right-of-way, not including reacquisition of existing right-of-way. Does the Area of Interest depicted on the map enclosed with INDOT's letter show both of those permanent right-of-way acquisition areas?

We look forward to reviewing the proposed area of potential effects and the reports on investigations of above-ground cultural resources and of archaeological resources that INDOT indicated will be forthcoming.

The Indiana SHPO staff's archaeological reviewer for this project is Wade T. Tharp, and the structures reviewer is John Carr. However, if you have a question about the Section 106 process, please contact initially the INDOT Cultural Resources staff members who are assigned to this project.

In all future correspondence about the US 231 Intersection Improvement Project at Cline Avenue, in Hanover and Center townships of Lake County (Des. No. 1700022), please refer to DHPA No. 24150.

Very truly yours,

Beth K. McCord
Deputy State Historic Preservation Officer

BKM:JLC:WTT:wtt

emc: Anuradha Kumar, INDOT
Shaun Miller, INDOT
Susan Branigin, INDOT
Shirley Clark, INDOT
Veronica Parsell, Cardno
Wade T. Tharp, INDNR-DHPA
John Carr, INDNR-DHPA



INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N642
Indianapolis, Indiana 46204

PHONE: (317) 234-5168

Eric Holcomb, Governor
Joe McGuinness, Commissioner

April 30, 2020

This letter was sent to the listed parties.

RE: US 231 Intersection Improvement Project in Hanover and Center Townships, Lake County, Indiana (Des. No. 1700022)

Dear Consulting Party,

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA), proposes to proceed with the US 231 Intersection Improvement Project in Lake County, Indiana (Des. No. 1700022).

This letter is part of the Section 106 review process for this project. Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic and archaeological properties. We are requesting comments from you regarding the possible effects of this project. Please use the above Des. Number and project description in your reply and your comments will be incorporated into the formal environmental study.

A Section 106 early coordination letter was distributed on July 19, 2019.

The proposed undertaking is on US 231 at the intersection of Cline Avenue in Lake County, Indiana. It is within Hanover and Center Townships, on the Saint John, Indiana 7.5' USGS Topographic Quadrangle, in Sections 2, 3, 10, and 11, Township 34 North, Range 9 West.

The project is needed because the existing intersection lacks turn lanes on the approaches, which leads to vehicle queue delays, left-turn crashes, and rear-end crashes, according to data provided by the INDOT LaPorte District from October 2012 through September 2015. These single-lane approaches have shoulders that are used as passing blisters, which in turn causes confusion for opposing left-turning vehicles. Levels of Service (LOS) were analyzed, as part of the engineering report prepared for this project, for the peak travel time of 4 p.m. East-bound traffic experiences a LOS rating of B for left turns and through traffic, and an A for right turns. West-bound traffic experiences a LOS rating of C for left turns, B for through traffic, and A for right turns. North-bound traffic experiences a LOS rating of D for left turns and C for through traffic, and finally, south-bound traffic experiences a LOS rating of C for both left turn lanes and through traffic. The project purpose is to address the operation of the intersection and/or reduce the number of left-turn and rear-end crashes by minimizing the potential for crashes.

The project will consist of reconstructing the intersection as a roundabout and would eliminate the left-turn crashes since the roundabout would remove left turning movements. This would also decrease the amount of rear-end crashes with the reduction of vehicle-queue lengths (delays), and with improved markings and signage

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required in advance of the roundabout. The current design includes a two-lane roundabout, resulting in a reduction of vehicle-queue lengths on U.S. 231 to 170 ft. and 75 ft. for east-bound and west-bound traffic, respectively.

This project is expected to require approximately 3.2 acres of additional permanent right-of-way and 0.10 acre of temporary right-of-way. This increase excludes reacquisition of existing right-of-way in non-platted areas. Subsequent to the distribution of the early coordination letter, the project area footprint was expanded on the northwest side to allow for additional alignment options for the roundabout (Attachment 1). While the original project area footprint measured 12.1 acres, the current project area footprint now measures 15.3 acres.

Troyer Group is under contract with INDOT to advance the environmental documentation for the referenced project. Cardno has been subcontracted to complete the Section 106 documentation for the project.

In accordance with 36 CFR 800.2 (c), you were invited to become a consulting party as part of the Section 106 process, or you are hereby invited to become a consulting party as part of the Section 106 process. Entities that have previously accepted consulting party status--as well as additional entities that are currently being invited to become consulting parties--are identified in the attached list.

The Section 106 process involves efforts to identify historic properties potentially affected by the undertaking, to assess the undertaking's effects and to seek ways to avoid, minimize, or mitigate any adverse effects on historic properties. For more information regarding the protection of historic resources, please see the Advisory Council on Historic Preservation's guide: *Protecting Historic Properties: A Citizen's Guide to Section 106 Review* available online at <https://www.achp.gov/sites/default/files/documents/2017-01/CitizenGuide.pdf>.

The Area of Potential Effects (APE) is the area in which the proposed project may cause alterations in the character or use of historic resources. The APE contains no resources listed in the National Register of Historic Places (NRHP).

A historian who meets the Secretary of the Interior's Professional Qualification Standards identified and evaluated above-ground resources within the APE for potential eligibility for the NRHP. As a result of the historic property identification and evaluation efforts, no above-ground resources are recommended as eligible for listing in the NRHP.

With regard to archaeological resources, an archaeologist who meets the Secretary of the Interior's Professional Qualification Standards identified portions of two sites within the project area. As a result of these efforts, sites 12La0727 and 12La0728, as identified within the project area, were recommended not eligible for listing in the NRHP and no further work is recommended.

Following distribution of the Early Coordination Letter on July 19, 2019, two comments and/or questions were received from Consulting Parties (Attachment 2). These comments/questions, and responses, are as follows.

Given its status as an IHSSI-rated Contributing resource and a Hoosier Homestead, in their response dated July 19, 2019, Indiana Landmarks requested a closer evaluation of the John Barman Farm (IHSSI 089-565-75008) and an assessment of how the proposed project would impact this resource. As a response to these concerns, a full evaluation of the John Barman Farm was completed within the text of the HPR, even though the property has a "Contributing" rating. "Contributing" indicates the building meets the basic Indiana Historic Sites and Structures Inventory (IHSSI) criteria, but it does not possess any noteworthy historic or architectural significance. "Contributing" properties can be eligible for or listed in the NRHP as part of a historic district, but do not have enough merit to be eligible or listed individually (INDOT Cultural Resources Office 2018).

Proposed Project Impacts

A small strip of right-of-way may be required from the front lawn of the John Barman Farm (IHSSI 089-565-75008; 7808 W 109th Avenue, Crown Point, IN 46307) on W 109th Avenue (US 231) to allow for construction of the approach to the roundabout; however, no alterations or impacts to the properties comprising the John Barman Farm would occur as a result of the project.

The Indiana State Historic Preservation Officer (SHPO) responded on August 16, 2019 and included the following question: “We note that the project is expected to require the acquisition of 3.2 acres of additional permanent right-of-way, not including reacquisition of existing right-of-way. Does the Area of Interest depicted on the map enclosed with INDOT’s letter show both of those permanent right-of-way acquisition areas?”

- All areas of right-of-way acquisition were included within the defined Area of Interest provided in July 2019. Subsequent to the distribution of the early coordination letter, the area of interest was expanded to the northwest to allow for additional design options for the proposed roundabout (Attachment 1). All potential areas of right-of-way acquisition are included within this updated Area of Interest as well.

The Historic Property Report and the Archaeology Report (Tribes only) are available for review in IN SCOPE at <http://erms.indot.in.gov/Section106Documents/> (the Des. No. is the most efficient search term, once in IN SCOPE). You are invited to review these documents and to respond with comments on any historic resource impacts incurred as a result of this project so that an environmental report can be completed. We also welcome your related opinions and other input to be considered in the preparation of the environmental document. If you prefer a hard-copy of this material, please respond to this email with your request within seven (7) days.

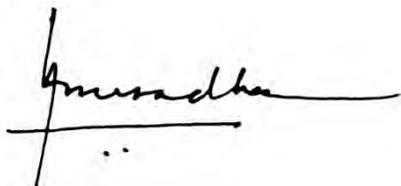
Please review the information and comment within thirty (30) calendar days of receipt. If you indicate that you do not desire to be a consulting party or if you have not previously accepted consulting party status and you do not respond to this letter, you will not be included on the list of consulting parties for this project and will not receive further information about the project unless the design changes.

For questions concerning specific project details, you may contact Veronica Parsell of Cardno at 317-388-1982 or veronica.parsell@cardno.com. All future responses regarding the proposed project should be forwarded to Cardno at the following address:

Veronica Parsell
Senior Project Scientist/Archaeologist
Cardno, Inc.
3901 Industrial Boulevard
Indianapolis, IN 46254
veronica.parsell@cardno.com.

Tribal contacts may contact Shaun Miller at smiller@indot.in.gov or 317-233-6795 or Michelle Allen at FHWA at michelle.allen@dot.gov or 317-226-7344.

Sincerely,



Anuradha V. Kumar, Manager
Cultural Resources Office
Environmental Services

Enclosures:

~~Attachment 1: Project Area Location~~

~~Attachment 2: Copies of Consulting Party correspondence~~

These attachments have been removed for brevity. Copies are included in elsewhere in this appendix.

Distribution List:

Consulting Party Entities:

- State Historic Preservation Officer
- Indiana Landmarks Northwest Field Office (bmiller@indianalandmarks.org)
- Pokagon Band of Potawatomi Indians

Veronica Parsell

From: Veronica Parsell
Sent: Thursday, April 30, 2020 8:14 PM
To: bmiller@indianalandmarks.org
Cc: Alexander, Kelyn; Branigin, Susan (sbranigin@indot.IN.gov); Miller, Shaun (INDOT)
Subject: FHWA Project: Des. No. 1700022; US 231 Intersection Improvement Project in Lake County, Indiana
Attachments: US231&ClineAve_Des1700022_Report Distribution Letter_2020-04-30.pdf

Des. No.: 1700022

Project Description: US 231 Intersection Improvement Project

Location: US 231 & Cline Avenue in Hanover and Center Townships, Lake County, Indiana

The Indiana Department of Transportation, with funding from the Federal Highway Administration, proposes to proceed with the US 231 Intersection Improvement Project in Lake County, Indiana (Des. No. 1700022). The Section 106 Early Coordination Letter for this project was originally distributed on July 19, 2019.

As part of Section 106 of the National Historic Preservation Act, a Historic Property Report and Archaeology Report (Tribes only) have been prepared and are ready for review and comment by consulting parties.

Please review this documentation located in IN SCOPE at <http://erms.indot.in.gov/Section106Documents/> (the Des. No. is the most efficient search term, once in IN SCOPE), and respond with any comments that you may have. If a hard copy of the materials is needed, please respond to this email with your request within seven (7) days.

Consulting parties have thirty (30) calendar days from receipt of this information to review and provide comment. Tribal contacts may contact Shaun Miller at smiller@indot.in.gov or 317-233-6795 or Michelle Allen at FHWA at michelle.allen@dot.gov or 317-226-7344.

Thank you in advance for your input,

Veronica Parsell MA, RPA

PROJECT ARCHAEOLOGIST | PRINCIPAL INVESTIGATOR
CARDNO



Direct +1 317 981 4023 Mobile +1 574 229 8747
Address 3901 Industrial Boulevard , Indianapolis, IN 46254
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This email and its attachments may contain confidential and/or privileged information for the sole use of the intended recipient(s). All electronically supplied data must be checked against an applicable hardcopy version which shall be the only document which Cardno warrants accuracy. If you are not the intended recipient,

Veronica Parsell

From: Alexander, Kelyn <KAlexander3@indot.IN.gov>
Sent: Friday, May 1, 2020 7:54 AM
To: Matthew.Bussler@pokagonband-nsn.gov
Cc: Miller, Shaun (INDOT); michelle.allen@dot.gov; Branigin, Susan; Kumar, Anuradha; Heck, Sara R; Veronica Parsell
Subject: FHWA Project: Des. No. 1700022; US 231 Intersection Improvement Project in Lake County, Indiana
Attachments: US231&ClineAve_Des1700022_Report Distribution Letter_2020-04-30.pdf

Des. No.: 1700022

Project Description: US 231 Intersection Improvement Project

Location: US 231 & Cline Avenue in Hanover and Center Townships, Lake County, Indiana

The Indiana Department of Transportation, with funding from the Federal Highway Administration, proposes to proceed with the US 231 Intersection Improvement Project in Lake County, Indiana (Des. No. 1700022). The Section 106 Early Coordination Letter for this project was originally distributed on July 19, 2019.

As part of Section 106 of the National Historic Preservation Act, a Historic Property Report and Archaeology Report (Tribes only) have been prepared and are ready for review and comment by consulting parties.

Please review this documentation located in IN SCOPE at <http://erms.indot.in.gov/Section106Documents/> (the Des. No. is the most efficient search term, once in IN SCOPE), and respond with any comments that you may have. If a hard copy of the materials is needed, please respond to this email with your request within seven (7) days.

Consulting parties have thirty (30) calendar days from receipt of this information to review and provide comment. Tribal contacts may contact Shaun Miller at smiller@indot.in.gov or 317-233-6795 or Michelle Allen at FHWA at michelle.allen@dot.gov or 317-226-7344.

Thank you in advance for your input,

Kelyn Alexander

Historian

Cultural Resources Office

Environmental Services

100 N. Senate Ave., Room N642

Indianapolis, IN 46204

Office: (317) 234-4147

Email: kalexander3@indot.in.gov

**** Historic Property Report (HPR) guidelines can be found [here](#)**



Indiana Department
of Natural Resources

Eric Holcomb, Governor
Cameron F. Clark, Director

Division of Historic Preservation & Archaeology · 402 W. Washington Street, W274 · Indianapolis, IN 46204-2739
Phone 317-232-1646 · Fax 317-232-0693 · dhpa@dnr.IN.gov · www.IN.gov/dnr/historic



June 8, 2020

Veronica Parsell
Senior Project Scientist/Archaeologist
Cardno, Inc.
3901 Industrial Boulevard
Indianapolis, Indiana 46254

Federal Agency: Indiana Department of Transportation (“INDOT”),
on behalf of Federal Highway Administration, Indiana Division (“FHWA”)

Re: Historic property report (Lengel and Thursby, 4/29/2020), and Phase Ia archaeological records review and field reconnaissance survey report (Parsell, 02/05/2020), for the US 231 Intersection Improvement Project at Cline Avenue (construction of a roundabout), located west of the City of Crown Point, in Hanover and Center townships of Lake County, Indiana (Des. No. 1700022; DHPA No. 24150)

Dear Ms. Parsell:

Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. § 306108), 36 C.F.R. Part 800, and the “Programmatic Agreement (PA) Among the Federal Highway Administration, the Indiana Department of Transportation, the Advisory Council on Historic Preservation and the Indiana State Historic Preservation Officer Regarding the Implementation of the Federal Aid Highway Program In the State of Indiana,” the staff of the Indiana State Historic Preservation Officer (“Indiana SHPO” or “INDNR-DHPA”) has reviewed INDOT’s April 30, 2020, letter, with the aforementioned reports enclosed, which we received on May 8, 2020.

The area of potential effects (“APE”) proposed in the historic property report (“HPR”; Lengel and Thursby, 4/29/2020) appears to be of appropriate size to encompass the geographic area in which this project could cause effects.

The John Barman Farm (Indiana Historic Sites and Structures Inventory No. 89-565-75008) on US 231/West 109th Avenue, near the northeastern quadrant of the intersection, contains several buildings that date from the mid-19th to early 20th centuries. According to the HPR, the front-gabled, vernacular house and some of the outbuildings have been altered, especially in recent decades. The farmstead seems to contain most of the outbuildings that are thought to have existed, although in somewhat altered condition. A modern house lies just to the west of the farmhouse and the outbuildings. The HPR indicates that the farmland has been divided, and it does not appear that historical field divisions or uses have continued to the present. The HPR points out that the ca. 1840s house with a large ca. 1900 is one of some 300 houses in Center Township that was rated “Contributing” in the State Historic Architectural and Archaeological Database, many of which date to the early 20th century. We acknowledge that the application of vinyl siding and the replacement of windows and architectural detailing not matching the original has diminished the house’s integrity of materials and design. We note, however, that a farmhouse that is part of an otherwise potentially historic farmstead does not have to be individually eligible for the National Register of Historic Places (“NRHP”) in order for the farmstead as a collection of related farm buildings, although lacking farm fields with integrity, to be NRHP-eligible as a good example of an early farmstead under Criterion A.

Given the integrity issues raised in the HPR about the John Barman Farmstead, we are inclined to agree with the evaluation of the John Barman Farmstead as not being eligible for the NRHP. However, given how close the proposed right-of-way would come to the front of the house, if another consulting party were to question the HPR’s conclusion that the farmstead is not NRHP-eligible, we think that further consultation on the farmstead’s potential for eligibility would be warranted.

C.2.4: Consulting Party Responses - Report Distribution Letter

Veronica Parsell
June 8, 2020
Page 2

We agree that none of the other aboveground properties identified in the HPR is eligible for inclusion in the NRHP.

In regard to archaeological resources, based on the submitted information and the documentation available to the staff of the Indiana SHPO, we have not identified any currently known archaeological resources listed in or eligible for inclusion in the NRHP within the proposed project area, and it is our opinion that no further archaeological investigations appear necessary at the proposed project area.

Additionally, there is insufficient information regarding archaeological sites 12-La-0727 and 12-La-0728 (both of which were identified during these archaeological investigations) to determine whether they are eligible for inclusion in the NRHP. However, we concur with the opinion of the archaeologist, as expressed in the Phase Ia archaeological records review and field reconnaissance survey report (Parsell, 02/05/2020, that the portions of sites 12-La-0727 and 12-La-0728 that lie within the proposed project area are unlikely to yield important archaeological data; and that no further archaeological investigations of these portions of sites 12-La-0727 and 12-La-0728 appear necessary. The portions of sites 12-La-0727 and 12-La-0728 that lie outside the proposed project area should be clearly marked and must be avoided by all ground-disturbing project activities. If avoidance is not feasible, then a plan for subsurface archaeological investigations must be submitted to the DHPA for review and comment. Any further archaeological investigations must be done in accordance with the "Secretary of the Interior's Standards and guidelines for Archeology and Historic Preservation" (48 F.R. 44716).

If any prehistoric or historic archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and Indiana Code 14-21-1-29) requires that the discovery be reported to the Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology within two (2) business days. In that event, please call (317) 232-1646. Be advised that adherence to Indiana Code 14-21-1-27 and Indiana Code 14-21-1-29 does not obviate the need to adhere to applicable federal statutes and regulations, including but not limited to 36 C.F.R. Part 800.

The Indiana SHPO staff's archaeological reviewer for this project is Wade T. Tharp, and the structures reviewer is John Carr. However, if you have a question about the Section 106 process, please contact initially the INDOT Cultural Resources staff members who are assigned to this project.

In all future correspondence about the US 231 Intersection Improvement Project at Cline Avenue, in Hanover and Center townships of Lake County (Des. No. 1700022), please refer to DHPA No. 24150.

Very truly yours,



Beth K. McCord
Deputy State Historic Preservation Officer

BKM:JLC:WTT:wt

emc: Anuradha Kumar, INDOT
Shaun Miller, INDOT
Susan Branigin, INDOT
Shirley Clark, INDOT
Veronica Parsell, Cardno
Pokagon Band of Potawatomi Indians
Brad Miller, Indiana Landmarks, Northwest Field Office
Wade T. Tharp, INDNR-DHPA
John Carr, INDNR-DHPA



INDIANA LANDMARKS

Northwest Field Office

541 South Lake Street, Gary, IN 46403

219 947 2657 / 800 450 4534 / www.indianalandmarks.org

June 10, 2020

Vernoica Parsell
Senior Project Scientist/Archaeologist
Cardno
3901 Industrial Boulevard
Indianapolis, IN 46254

RE: Des. No. 1700022; US 231 Intersection Improvement Project in Hanover and Center Township, Lake County, Indiana

Dear Ms. Parsell,

I would like to respond to the Indiana Division of Historic Preservation & Archaeology (DHPA) letter dated June 8, 2020. In the letter, DHPA staff explained “that a farmhouse that is part of an otherwise potentially historic farmstead does not have to be individually eligible for the National Register of Historic Places in order for the farmstead as a collection of related farm buildings, although lacking farm fields with integrity, to be NRHP-eligible as a good example of an early farmstead under Criterion A.” Staff continued: “given how close the proposed right-of-way would come to the front of the house, if another consulting party were to question the HPR’s conclusion that the farmstead is not NRHP-eligible, we think that further consultation on the farmstead’s potential for eligibility would be warranted.”

I agree the individual eligibility of the farmhouse should not prohibit consideration of the eligibility of the farmstead as a collective resource. In addition to the 1840s farmhouse with an early 20th century addition, the HPR acknowledges the presence of numerous outbuildings: horse barn (1850), two barns (circa 1900), a milk house (1916), a silo (1900), a garage (1959), a corn crib (1900), and a hog house (1916). It is not completely clear the HPR assesses the site’s eligibility as it evolved into a dairy farm in the early 20th century and one that retains a majority of the associated outbuildings in addition to the farmhouse.

Given this information, I would encourage further consultation on the property’s eligibility, especially given the certain impact of an expanded right-of-way at the front of the property.

If you have any questions please feel free to contact me by phone or email at (219) 947-2657 or bmiller@indianalandmarks.org.

Sincerely,

A handwritten signature in cursive script, appearing to read "Brad Miller".

Brad Miller, Director
Northwest Field Office



INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N758-ES
Indianapolis, Indiana 46204

PHONE: (317) 296-0799

Eric Holcomb, Governor
Joe McGuinness, Commissioner

February 19, 2021

This letter was sent to the listed parties.

RE: US 231 Intersection Improvement Project in Hanover and Center townships, Lake County, Indiana (Des. No. 1700022; DHPA #24150)

Dear Consulting Party,

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA), proposes to proceed with the US 231 Intersection Improvement Project in Lake County, Indiana (Des. No. 1700022).

This letter is part of the Section 106 review process for this project. Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic and archaeological properties. We are requesting comments from you regarding the possible effects of this project. Please use the above Des. Number and project description in your reply and your comments will be incorporated into the formal environmental study.

A Section 106 early coordination letter was distributed on July 19, 2019. In addition, a letter distributed on April 30, 2020 notified consulting parties that a historic property report and archaeology report (Tribes only) were available for review and comment.

The proposed undertaking is on US 231 at the intersection of Cline Avenue in Lake County, Indiana. It is within Hanover and Center townships, on the Saint John, Indiana 7.5' USGS Topographic Quadrangle, in Sections 2, 3, 10, and 11, Township 34 North, Range 9 West.

The project is needed because the existing intersection lacks turn lanes on the approaches, which leads to vehicle queue delays, left-turn crashes, and rear-end crashes, according to data provided by the INDOT LaPorte District from October 2012 through September 2015. These single-lane approaches have shoulders that are used as passing blisters, which in turn causes confusion for opposing left-turning vehicles. Levels of Service (LOS) were analyzed, as part of the engineering report prepared for this project, for the peak travel time of 4 p.m. East-bound traffic experiences a LOS rating of B for left turns and through traffic, and an A for right turns. West-bound traffic experiences a LOS rating of C for left turns, B for through traffic, and A for right turns. North-bound traffic experiences a LOS rating of D for left turns and C for through traffic, and finally, south-bound traffic experiences a LOS rating of C for both left turn lanes and through traffic. The project purpose is to address the operation of the intersection and/or reduce the number of left-turn and rear-end crashes by minimizing the potential for crashes.

The project will consist of reconstructing the intersection as a roundabout and would eliminate the left-turn crashes since the roundabout would remove left turning movements. This would also decrease the amount of rear-end crashes with the reduction of vehicle-queue lengths (delays), and with improved markings and signage required in advance of the roundabout. The current design includes a two-lane roundabout, resulting in a reduction of vehicle-queue lengths on US 231 from approximately 280 feet to 170 feet for east-bound traffic and from approximately 230 feet to 75 feet for west-bound traffic.

Subsequent to the distribution of the early coordination letter, the project area footprint was expanded on the northwest side to allow for additional alignment options for the roundabout. While the original project area footprint measured 12.1 acres, the current project area footprint now measures 15.3 acres. The project is expected to require approximately 10.4 acres of permanent right-of-way. This includes re-acquisition of existing right-of-way in non-platted areas. Subsequent to the distribution of previous correspondence in April 2020, changes to the project have occurred. The details regarding these changes are outlined below.

Troyer Group is under contract with INDOT to advance the environmental documentation for the referenced project. Cardno has been subcontracted to complete the Section 106 documentation for the project.

In accordance with 36 CFR §800.2 (c), you were invited to become a consulting party as part of the Section 106 process, or you are hereby invited to become a consulting party as part of the Section 106 process. Entities that have previously accepted consulting party status--as well as additional entities that are currently being invited to become consulting parties--are identified in the attached list.

The Section 106 process involves efforts to identify historic properties potentially affected by the undertaking, to assess the undertaking's effects, and to seek ways to avoid, minimize, or mitigate any adverse effects on historic properties. For more information regarding the protection of historic resources, please see the Advisory Council on Historic Preservation's guide: *Protecting Historic Properties: A Citizen's Guide to Section 106 Review* available online at <https://www.achp.gov/sites/default/files/documents/2017-01/CitizenGuide.pdf>.

The Area of Potential Effects (APE) is the area in which the proposed project may cause alterations in the character or use of historic resources. As a result of the historic property identification and evaluation efforts completed for the project and distributed on April 30, 2020, no above-ground resources were recommended as eligible for listing in the National Register of Historic Places (NRHP). Following distribution of the historic property report on April 30, 2020, several comments were received from consulting parties.

On June 8, 2020, the Indiana State Historic Preservation Office (SHPO) responded by letter (Attachment 1) and stated that "Given the integrity issues raised in the HPR about the John Barman Farmstead, we are inclined to agree with the evaluation of the John Barman Farmstead as not being eligible for the NRHP. However, given how close the proposed right-of-way would come to the front of the house, if another consulting party were to question the HPR's conclusion that the farmstead is not NRHP-eligible, we think that further consideration on the farmstead's potential eligibility would be warranted."

On June 10, 2020, the Indiana Landmarks Northwest Field Office responded by letter (Attachment 1) and stated that "...the individual eligibility of the farmhouse should not prohibit consideration of the eligibility of the farmstead as a collective resource. In addition to the 1840s farmhouse with an early 20th century addition, the HPR acknowledges the presence of numerous outbuildings: horse barn (1850), two barns (circa 1900), a milk house (1916), a silo (1900), a garage (1959), a corn crib (1900), and a hog house (1916). It is not completely clear the HPR assesses the site's eligibility as it evolved into a dairy farm in the early 20th century and one that retains a majority of the associated outbuildings in addition to the farmhouse. Given this information, I would

encourage further consultation on the property’s eligibility, especially given the certain impact of an expanded right-of-way at the front of the property.”

Given the comments provided by consulting parties regarding the John Barman Farm (IHSSI No. 089-565-75008), additional analysis of the farm was completed by a Cardno historian who meets the Secretary of the Interior’s Professional Qualification Standards and is provided below.

Historic Context of Agriculture in Lake County, Indiana

Named after Lake Michigan on its northern boundary, Lake County was officially organized into three townships in 1837 and public land sales started in 1839. However, Euro-American settlers moved to the area as early 1835 (Ball 1873). In 1840, Crown Point was designated as the county seat (HLFI 1996). Center Township was organized in 1837 and originally included Winfield, Hanover, Ross, and St. John townships; Center Township assumed its present-day boundaries in 1853 (Howat 1915). Center Township boasted vast amounts of fertile land, which attracted early settlement (HLFI 1996).

The 1840 map of Lake County shows all unsold lands within the county and indicates that the area containing the project is largely unsettled, as parcels with corresponding surnames are mostly absent. Section 2, Township 34 North, Range 9 West (the location of the John Barman Farm) is engulfed in “Prairie West” (Robinson 1840). When the railroads came through the township in the 1860s, an already flourishing agricultural community was able to transport their goods to larger urban markets such as Chicago (HLFI 1996).

Agriculture has played an important role in the history of Indiana, contributing to the development of the state’s economic, social, and educational systems from its earliest history. When Indiana was admitted to the United States in 1816, 95 percent of the population was engaged in food production (Thompson and Madigan 1966).

Though agriculture was the primary occupation of the early settlers throughout Indiana, in Lake County it was first practiced at a subsistence level due to the county’s uneven terrain and undeveloped transportation system (HLFI 1996). During the early to mid-nineteenth century, early Euro-American settlers constructed English or threshing barns for the threshing of grain in the central bay of the barn and storage of grain on the side aisles. When New Englanders moved into Center Township around 1835, they grew wheat and built English-style barns. In northern Indiana, the English barn was the predominant barn type during this period (Noble 1995).

Beginning in the mid-nineteenth century, however, developments in technology and transportation brought about the transition from subsistence-level agriculture to farming as a business (Thompson and Madigan 1966). These developments, along with the influx of immigrants to the area, resulted in a significant increase in the number of farmsteads that developed in Lake County during the late-nineteenth and early-twentieth centuries.

Generally, the period between 1850 and 1900 is considered to be Indiana’s golden age of agriculture, due to advancements in transportation, technology, and education. These advancements increased productivity and gave farmers the ability to reach faraway markets. However, in comparison to other townships in Lake County, Lake County’s southern townships did not experience an agricultural boom until the late-nineteenth and early-twentieth centuries, due in part to the delayed arrival of the railroad, as well as the presence of the Kankakee Marsh (HLFI 1996).

As sophisticated machinery replaced rudimentary farming techniques, the amount of labor required on farms decreased and levels of productivity increased. By the early 1900s, few farmers in Lake County owned tractors, but, by the 1930s, tractors had become more popular. During the Great Depression, however, many farmers resorted to using horses (Thompson and Madigan 1966). By this time, the cultivator—used to remove weeds

and prevent their return—had grown in size and two rows could be worked at the same time. It was not uncommon for farmers to share machinery with each other or rent it from a supply store (Thompson and Madigan 1966). Farmers with large dairy cowherds began using automated milking and watering machines during the 1920s. Canned milk was transported to other cities via the Monon Railroad, known as the “milk run.” The Monon Railroad stopped daily in rural towns throughout Lake County during the 1920s (Thompson and Madigan 1966). Eventually, farmers began to specialize in livestock, focusing either on hogs and chickens or solely on cows, largely because it had become too expensive for farmers to raise a combination of animals.

In addition to machinery that helped streamline farming processes, planting and fertilization techniques also brought about increased productivity. Prior to chemical fertilizer, farmers used horses to spread manure in fields. Though the use of chemical fertilizer was common statewide by the 1880s, many Lake County farmers were skeptical (Thompson and Madigan 1966). Farmers in the county used crop rotation to avoid depleting soil nutrients and many did not implement the use of commercial fertilizers until the 1920s (Thompson and Madigan 1966). It was not until several decades later, during the 1960s, when most farmers stopped practicing crop rotation and began to grow continuous crops of corn.

With the advent of mechanized agricultural practices during the twentieth century, farms became larger. This prosperity is evident in the construction of farmstead homes across Lake County in the Queen Anne, Colonial Revival, and Craftsman architectural styles (HLFI 1996).

Examples of Center Township, Indiana Farmsteads

Center Township, Lake County has five “Notable” or “Outstanding” farmsteads representing agricultural history from the 1870s to the 1920s (Biggio 2018). Of these five farmsteads, three were selected to compare to the John Barman Farm, which has an IHSSI rating of Contributing (IHSSI No. 089-565-75008) (Table 1) (Attachment 2, Photo 1). These three resources (IHSSI Nos. 089-142-75003 - Notable, 089-142-75012 - Notable, and 089-370-75029 - Notable) were chosen for comparison based upon their late-nineteenth century to early-twentieth century construction, vernacular characteristics, and their association with dairy farming.

The three “Notable” properties from the late-nineteenth to early-twentieth century, like the John Barman Farm, include a dairy barn, milk house, and a corn crib. The farm at 2208 East 109th Avenue (IHSSI No. 089-142-75003) features a gambrel roof dairy barn with wood siding. The drive-thru corn crib is capped by a gable roof and features spaced wooden slats. The milk house is clad in wood siding and is capped by a gable roof. Photos of the Knopf Farm (IHSSI No. 089-142-75012) dairy barn, corn crib, and milk house were not available. However, the IHSSI recorded the dairy barn as built in 1918 with a gambrel roof and vertical siding. The Reeder Farm (IHSSI No. 089-370-75029) includes a gambrel roof dairy barn with wood siding and a milk house clad in shiplap wood siding. The Reeder Farm also has a drive-thru corn crib and a hog house.

Of the three comparison properties, the John Barman Farm (IHSSI No. 089-565-75008) is the only property with a circa 1843 English threshing barn from the early Euro-American settlement period. The John Barman Farm also includes a dairy barn, milk house, and corn crib / granary typical of an early-twentieth century dairy farm. These dairy-farm-related buildings are similar in type and integrity to the three comparison properties. Therefore, the John Barman farm is comparable with other IHSSI Notable and NRHP-eligible properties within Center Township.

Table 1. IHSSI Notable Farmsteads in Center Township, Lake County

| IHSSI Number | Property Name Address | Date | Description | IHSSI / NRHP |
|---------------------|---|------------------|---|--|
| 089-142-75003 | 2208 East 109 th Avenue | c. 1910 | Free Classic cottage house with aluminum siding; Chicken House, Dairy Barn, Drive-thru corn crib, milk house, silo, tool shed, other, well house | IHSSI Notable example of an early-twentieth century farmstead; NRHP Criterion A for agricultural and economic significance |
| 089-142-75012 | Knopf Farm / 1810 East 113 th Avenue | c. 1878, 1910 | Free Classic Farmhouse clad in vinyl siding, replacement windows; Gambrel roof barn with vertical siding (1918), milk house, pole barn, corn crib, two silos, frame and concrete sheds | IHSSI Notable example of a late-nineteenth early-twentieth century farmstead |
| 089-370-75029 | Reeder Farm / 5604 West 141 st Avenue | c. 1890 | Gabled Ell house with aluminum siding; Chicken House, Corn crib, Dairy barn, Drive-thru corn crib, Gambrel Roof Barn (c. 1924), Garage, Granary, Hog House, Livestock Barn, Milk house, Shed, Silo, Smoke house | IHSSI Notable example of a late-nineteenth century farmstead |
| 089-565-75008 | John Barman Farm / 7808 West 109 th Avenue | c. 1843, c. 1900 | Gable Front Hall and Parlor with vinyl siding; English Barn (c. 1843), Cow Barn (1900), Hog House, Corn Crib / Granary, Milk house, Garage, Silo | IHSSI Contributing Typical early-twentieth century farmstead |

Brief History of the John Barman Farm's Owners, Richard Church and John Barman

In 1843, Richard Church, through his assignee and son John Church, purchased 80 acres in Section 2 (S1/2 SW1/2) from the LaPorte Land office (Bureau of Land Management Land Patent 1843). The original section of the house and original barn (present-day horse barn) were built circa 1843 (Barman 2020; Bureau of Land Management Land Patent 1843). Born in 1775, in Massachusetts, Richard Church immigrated first to Michigan Territory, and then to Lake County, Indiana around 1837, as one of the early Euro-American settlers in the county. According to the 1840 U.S. Federal Census, Richard Church lived in Lake County with his wife and his five younger children. Several of his adult children lived nearby. It is unclear if the subject property was occupied by Richard Church or possibly by his adult son, John. Richard Church died in 1847 and he is buried in Crown Point (Ancestry 2020a; Find a Grave 2020; Howat 1915). In 1852, Johann (John) Barman purchased the property from John Church (Barman 2020).

Johann (John) Barman was born in Germany in 1810, later marrying Catherine Fetsch and immigrating to the United States. They had at least nine children, including Henry, John, Philip, Peter, Elizabeth, Barbara, Sophia, Francis (Frank), and Michael (Ancestry 2019a, 2019b). By 1860, Barman was a wealthy farmer who owned real estate valued at \$6,000 (Ancestry 2019a). By 1870, his real estate holdings were valued at \$15,000 (Ancestry

2019b). *Hardesty's Sectional Map of Lake County, Indiana* (1876) depicted Barman owning approximately 160 acres (Hardesty 1876).

John Barman died in 1892 and his land holdings were split amongst three of his sons: Philip, Peter, and Frank (Find A Grave 2019; Steele and Draper 1906). The Steele and Draper (1906) *Map of Lake County* indicates that Philip owned the original homestead with 80 acres. Philip added a large two-story addition to the house circa 1900 (Barman 2020). A dairy barn was also built around 1900 and a milk house was constructed in 1916 as the farm concentrated on dairy farming, with approximately 16 to 20 cows. The Barmans shipped their milk by rail to Crown Point, St. John, and Chicago (Barman 2020).

By 1906, Peter Barman had 80-acres adjacent to the north of the original homestead, present-day 10623 Cline Avenue, and died around 1894 (Steele and Draper 1906; *The Times* 1910). His land then appears to have been sold outside of the family. In that same year, Frank Barman had 160 acres south of the parcels owned by Philip and Peter (Steele and Draper 1906) and died in 1910. His lands appear to have been absorbed into Philip Barman's estate.

The present-day owner, Donald Barman, took over the original farmstead, 7808 West 109th Avenue, from his father and grandfather in 1970. Barman built the Ranch-style house on the property in 1979. The farm transitioned from a dairy farm to raising beef cattle in the late 1960s or 1970s, eventually transitioning to a crop farm in the 1990s. Presently, Donald Barman rents his farmland to another farmer (Barman 2020).

Construction History of the Farm

The first barn was constructed circa 1843 as a three-bay threshing barn, also known as an English barn (Attachment 3, Building A) (See Attachment 2 for photos). Around 1900, a cow barn (Attachment 3, Building B) and a corn crib / granary (Attachment 3, Building D) were built when the farm transitioned to a dairy farm. A concrete stave silo was attached to this barn circa 1950. In 1916, a hog house (Attachment 3, Building C) was built. The original 1916 milk house (Attachment 3, Building F) was rebuilt in the 1940s due to a fire (Barman 2020). In 1959, a detached garage (Attachment 3, Building E) was added to the property and a Ranch-style house (Attachment 3, Building H) was built in 1979.

Building A: English Barn

Built circa 1843, the English Barn (Attachment 3, Building A) is a three-bay, timber-frame, threshing barn (Attachment 2, Photo 4). The timbers are hand hewn logs with mortise and tenon joints that form the structure of the barn (Attachment 2, Photo 5). The sill beam, also hand hewn, rests directly on brick footers; however, concrete blocks have been placed under the sill beam in several locations (Attachment 2, Photo 6). The barn has a dirt floor. The sill beams form the substructure of the wall system consisting of corner, prick, and aisle posts that are attached to principal tie beams. Wall girts between the posts provide support for the exterior wall. The central upright incorporates a ladder to allow access to the highest part of the barn. A small horizontal girt, a few feet from the ground and attached to the central upright, operates as a retaining wall and separates the center threshing aisle from the adjacent bay. Diagonal supports, also called wind braces, provide additional support to the mortise and tenon joints. The eave plate ties together the wall structure below and supports the roof structure above. A system of principal purlins with straining tie beams adds additional support to the roof. Rough cut timbers form the common rafters of the gable roof. A series of wide boards rest on top of the rafters. It appears that the north side of the gable roof features narrower boards, suggesting this portion of the roof was constructed later. The roof is sheathed with asphalt shingles and forms a saltbox style gable roof, further indication that the barn received a north addition.

The exterior of the barn is clad with vertical wood boards and battens; however, the boards are spaced about one inch apart in the gable ends to promote air movement for the drying of grain. The south elevation features a central wood sliding door and a small, wood frame, four-light window. There is a replacement access door and a sign affixed to the facade reading “Barman Farm 1852.” The sign refers to the date when the Barman family purchased the farm, not when the barn was built. The north elevation includes an off-centered sliding wood barn door and a four-light wood frame window. Two horse stall doors are cut into the exterior siding. The west gable features replacement wood vertical siding beneath a narrow pent eave. The east gable is clad in vertical wood siding.

Building B: Cow Barn

Constructed circa 1900, the cow barn is a wood-frame dairy barn capped by a metal gable roof with a projecting hood on the north gable end (Attachment 2, Photos 7 and 8). The rectangular building is clad in vertical wood siding and includes a small wood frame equipment shed addition that is perpendicular to the main building on the east elevation. This equipment shed addition was added circa 1950. A porch roof extends across the east elevation supported by a metal clad wall and is open on the south side. The west elevation has four-light wood frame windows that appear to be recently refurbished. A sliding barn door is the main access door on the northern side of the west elevation. On the south elevation, the concrete stave silo was attached to the barn circa 1950.

Building C: Hog House

The hog house was built in 1916 and is a frame building with a gable roof (Attachment 2, Photos 9 and 10). The rectangular plan building is clad in metal siding. On the south elevation is an enclosed porch with a sliding barn door that is capped by a shed roof. A four-light window is located on the west elevation and a sliding door is located on the east elevation.

Building D: Corn Crib / Granary

Built circa 1900, the corn crib / granary is a gambrel roof barn clad in vertical metal and wood siding (Attachment 2, Photos 11 and 12). The roof is sheathed in asphalt shingles. The north elevation features a sliding barn door. Two windows are in each of the gable ends and the east elevation has a sliding barn door. The west elevation has a shed roof supported by a metal wall open on the north and south elevations. A one-story addition on the south elevation is capped by a shed roof and features a door and a sliding door added circa 1950.

Building E: Garage

Built in 1959, the garage is a rectangular building capped by an asphalt shingle roof and clad in vinyl siding (Attachment 2, Photo 13).

Building F: Milk house

Originally built in 1916 and re-built in the 1940s, the milk house is a rectangular building with a gable asphalt shingle roof (Barman 2020) (Attachment 2, Photos 14–16). The building is clad in wood shiplap and flush siding. Fenestration consists of four-light, wood-frame windows. Adjacent to the milk house is a brick-lined, 60-foot well that was previously attached to a windmill that pumped water into the milk house to cool the cans of milk before shipment. The windmill was destroyed in a storm in 1965 (Barman 2020).

Building G: House

The John Barman Farm (IHSSI No. 089-565-75008) was surveyed in 1994 for the IHSSI and Donald Barman, the owner of the property, provided information about the buildings located on the property (Attachment 2, Photo 17). According to Barman, the original vernacular house was built circa 1840 and a large, early-twentieth century addition was added. The early-twentieth century addition was constructed by the Henderlong Lumber

Company. The building was clad in 4-inch wood clapboards with fish scale shingles in the gable eaves. The IHSSI record from 1994 indicates that six-over-six double-hung windows were located in the 1840s section and new one-over-one double-hung windows were located in the early-twentieth century section. One of the original windows on the west elevation of the original 1840s section was replaced at the time of the 1994 survey (IDNR-DHPA 2007). The porch featured turned columns and spindlework under the east side hipped roof porch. Presently, the house is clad in vinyl siding and the fish scale shingles, turned porch columns, and spindlework have been removed. All the windows in the original circa 1840s section and the early twentieth century addition are replacement, one-over-one vinyl sash windows.

NRHP Analysis

The John Barman Farm (IHSSI No. 089-565-75008; 7808 West 109th Avenue) embodies the broad pattern of agricultural development of the area. It includes a mid-nineteenth century, timber-frame barn built in the early years of Euro-American settlement in Center Township, Lake County, Indiana. With its English threshing barn, the property represents the importance of growing grain when the Midwest was known as the nation's "bread basket." It also represents the pattern of New England immigration to Indiana, which brought this barn type to the region. The English barn was repurposed during the late-nineteenth to early-twentieth century when the farm transitioned to dairy farming. The outbuildings constructed during the dairy farm period are typical of an early-twentieth century farm and collectively embody the distinctive characteristics of an early-twentieth century farm in this region. Although the John Barman Farm is not a significant example of a large-scale dairy farm, the cow barn, hog house, corn crib / granary, and milk house contribute to the significance of the farm as one of the few remaining examples of a farm in Center Township, Lake County. Additionally, few farms remain in Center Township, Lake County due to suburbanization. Therefore, the John Barman Farm is significant under Criterion A and is recommended eligible for the NRHP. The property's period of significance is extended to 1972, the 50-year threshold from the expected project letting date. Even though the garage was built in 1959, it was not a significant part of the farm operation and is considered a non-contributing building. The house is also considered a non-contributing building. Although the original house dates to the mid-nineteenth century, it has been altered to the point where it now lacks integrity.

Richard Church, and later his son John Church, established the farmstead in 1843 and were some of the earliest Euro-American residents in the township. They did not stay in the area for a long period—Richard died in 1847 and John Church moved to Michigan in 1852 (Barman 2020; U.S. Find a Grave 2020). The Barman family purchased the property in 1852 and have continued to own the farmstead to the present day. Background research conducted for this project was unable to establish a connection between the John Barman Farm and the lives of historically significant persons. Therefore, the property is recommended not eligible for listing in the NRHP under Criterion B.

The circa 1843 English barn, also known as the horse barn, is an excellent example of a timber-frame mortise and tenon constructed barn. It embodies the distinctive characteristics of the timber-frame mortise and tenon construction and represents the work of a master craftsman. It is a rare surviving example of an early timber-frame barn built during the early years of Euro-American settlement in Center Township, Lake County, Indiana. Some changes to the building have occurred, namely some of the brick footers have been replaced with concrete block, the addition of a replacement access door, and the insertion of horse stall doors. Despite these changes, they have not affected the timber-frame structure of the barn and it retains integrity of location, setting, design, materials, workmanship, feeling, and association. The English barn is significant under Criterion C and is recommended individually eligible for the NRHP. The remaining buildings (cow barn, hog house, corn crib / granary, garage, milk house, and house) of the property do not represent the work of a master craftsman, nor do they embody the distinctive characteristics of a type, period, or method of construction, or represent high artistic values. Therefore, the remaining outbuildings are not recommended eligible under Criterion C.

The John Barman Farm has not yielded nor may be likely to yield information important in prehistory or history. For these reasons, the John Barman Farm is not recommended eligible under Criterion D.

The John Barman Farm retains integrity of location and setting since it remains in its original location and is still an active farm. It possesses the feeling and association of a farm from the early Euro-American settlement period and the early twentieth century farming period. The major outbuildings (English barn, cow barn, hog house, corn crib / granary, and milk house) retain the integrity of design, materials, and workmanship and are recommended as contributing resources. The garage was built in 1959, but was not significant to the farm operation and is a non-contributing resource to the farm. The house was built in two phases; the original section built in the 1840s, and the addition constructed in the early twentieth century. The vinyl siding, replacement windows, and the removal of the turned porch columns and spindlework diminish the integrity of materials of both sections of the house. The house is recommended as a non-contributing resource to the farm.

Summary

For the reasons described above, the John Barman Farm (IHSSI No. 089-565-75008) is recommended eligible for listing in the NRHP under Criteria A and C for agriculture and architecture for local significance. The NRHP southern boundary runs along the existing roadway and the western boundary extends along the east side of the drive and 1979 house, but does not include the 1979 house. The northern and eastern boundaries follow the lines of the un-tilled land (Attachment 3).

Preliminary Assessment of Effects

Following the recommendation that the Barman Farm is eligible for the NRHP, portions of the proposed roundabout have been redesigned to avoid impacting the property. Right-of-way will no longer be acquired from within the NRHP boundary for the Barman Farm (Attachment 4). The scope of work along and near the westbound travel lane within the NRHP boundary has been modified such that right-of-way re-acquisition is also no longer necessary from within the NRHP boundary. The prior scope of work accounted for full depth roadway reconstruction while maintaining the same alignment for the northern roadway shoulder. Also included was side slope grading work to achieve proper tie-ins. The new scope now includes only asphalt resurfacing for the westbound travel lanes along the road frontage of the Barman Farm NRHP boundary, which will eliminate the need for any grading revisions within this area (Attachment 5). An existing utility corridor along with existing utility easements is also currently present along the road frontage of the Barman property; however, no utilities within the NRHP boundary will require relocation as a result of the current project.

No new signage or lighting will be placed within the Barman Farm NRHP boundaries. The nearest proposed light fixture will be located approximately 125 feet west of the NRHP boundary (Attachment 4, Attachment 6). The nearest signs will be located approximately 50 feet to the east and west of the NRHP boundary (Attachment 4, Attachment 6). While the newly proposed lighting and signage will be visible both to and from the Barman Farm, there is existing infrastructure and signage in and around the Barman Farm that is currently creating the same types of visual effects to the property (Appendix 2, Photographs 18-23; Plate 1, Plate 2). The existing utility poles and signage already located in and around the Barman Farm creates an intrusion to the setting, feeling, and association of the property such that any new lighting or signage introduced by the project will not result in any additional, negative visual impact.



Plate 1. View of existing signage and utility poles around the Barman Farm from east of the property, looking west.



Plate 2. View of existing signage and utility poles around the Barman Farm from the western edge of the NRHP boundary, looking west.

Our preliminary finding, therefore, is “No Adverse Effect” for this Section 106 undertaking.

According to 36 CFR § 800.5(a)(1), an adverse effect is determined “when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling, or association. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative.” Per 36 CFR § 800.5(a)(2), examples of adverse effect include but are not limited to:

- i. Physical destruction of or damage to all or part of a property;
- ii. Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access not consistent with the Secretary’s Standards for the Treatment of Historic Properties (36 CFR part 68) and applicable guidelines;
- iii. Removal of the property from its historic location;
- iv. Change of the character of the property’s use or physical features within the property’s setting that contribute to its historic significance;
- v. Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property’s significant historic features;
- vi. Neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization; and
- vii. Transfer, lease, or sale of a property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property’s historic significance.

The proposed US 231 project would consist of reconstructing the intersection as a roundabout. The current design includes a two-lane roundabout. INDOT does not appear to possess clear title for any of the nearby right-of-way; therefore, it is anticipated that all right-of-way up to the roadway edge will need to be acquired for the project. The exception to this statement is the area fronting the Barman Farm. No right-of-way acquisition (neither reacquisition nor of new permanent right-of-way) will occur within the Barman Farm property. The

project is expected to require approximately 10.4 acres of permanent right-of-way. This includes re-acquisition of existing right-of-way in non-platted areas.

No permanent, physical changes to the Barman Farm would occur as a result of the project. The roadway that fronts the NRHP boundary of the Barman Farm would remain in its current state. Asphalt milling and resurfacing, as opposed to a full-depth pavement replacement, will occur along the west-bound lane in order to avoid acquiring right-of-way from within the NRHP boundaries of the property. Adverse effects, including noise and traffic pattern changes, will occur during construction; however, these effects would be temporary. The proposed roundabout will be constructed west of the existing intersection, and while the roundabout will result in changes to traffic flow at the intersection, these changes will allow for a steadier and even flow of traffic with shorter vehicle queue lengths than exist currently. Reducing queue lengths will help prevent traffic build-up in front of the Barman Farm property.

Additional lighting for the new roundabout is anticipated; however, it will be focused on the entrances and center of the roundabout. The closest light to be installed as a result of the project will be located approximately 125 feet west of the western edge of the NRHP boundary for the Barman Farm. Similarly, signage will be installed on the approach to the roundabout in order to direct traffic. The closest roundabout signs to the Barman Farm will be approximately 50 feet east and west of the NRHP property boundaries. There are currently existing signs of similar size and scale present around the property (Appendix 2, Photographs 18, 19, 22, 23). The newly proposed lighting and signage around the Barman Farm will not create any greater intrusion to the property's setting, feeling, and association than what is already occurring through the presence of existing utility poles and signage in and around the Farm. In addition, a tree line present along the west side of the property will help minimize the viewshed to the project area.

In addition, the Barman Farm's rural setting is currently being impacted by suburban development to the west and northwest of the property. A large, residential subdivision is in the process of being constructed on the northwest side of the US 231 and Cline Avenue intersection, within the viewshed of the Barman Farm, affecting its rural setting. Aerial imagery from April 2018 and December 2019, the most recent aerial available, provide an overview of this suburban expansion (Plate 3, Plate 4). Photographs of the extent of construction visible from the US 231 and Cline Avenue intersection are provided in Plates 5 and 6.



Plate 3. Aerial imagery from 2018 showing the overall rural nature of the area in and around the Barman Farm (Esri 2009a).



Plate 4. Aerial imagery from 2019 showing the beginnings of suburban development around the Barman Farm (Esri 2009b).



Plate 5. View of residential construction in the northwest corner of the US 231 and Cline Avenue intersection, from the intersection looking northwest (February 2020).



Plate 6. View of residential construction in the northwest corner of the US 231 and Cline Avenue intersection, from the intersection looking north (June 2019). The Barman Farm is located just to the east of this photograph on the northeast side of the intersection.

None of the proposed project activities in the vicinity of the Barman Farm would interfere with the property’s ability to convey its agricultural, architectural, and local significance. Given the scope of work and the diminishing rural nature of the project setting, this project would have “No Adverse Effect” on the Barman Farm (IHSSI No. 089-565-75008). This recommendation is not the official effects finding, which will be submitted for review by all consulting parties following the distribution of this letter.

You are invited to review this letter and to respond with comments on any historic resource impacts incurred as a result of this project so that an environmental report can be completed. We also welcome your related opinions and other input to be considered in the preparation of the environmental document. If you prefer a hard copy of this material, please respond to this email with your request within seven (7) days.

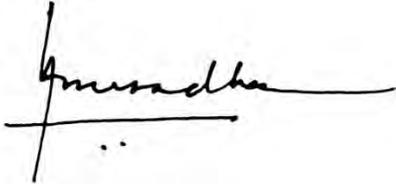
Please review the information and comment within thirty (30) calendar days of receipt. If you indicate that you do not desire to be a consulting party or if you have not previously accepted consulting party status and you do not respond to this letter, you will not be included on the list of consulting parties for this project and will not receive further information about the project unless the design changes.

For questions concerning specific project details, you may contact Veronica Parsell of Cardno at 574-229-8747 or veronica.parsell@cardno.com. All future responses regarding the proposed project should be forwarded to Cardno at the following address:

Veronica Parsell
Senior Project Scientist/Archaeologist
Cardno, Inc.
3901 Industrial Boulevard
Indianapolis, IN 46254
veronica.parsell@cardno.com.

Tribal contacts may contact Shaun Miller at smiller@indot.in.gov or 317-416-0876 or Kari Carmany-George at FHWA at K.CarmanyGeorge@dot.gov or 317-226-5629.

Sincerely,



Anuradha V. Kumar, Manager
Cultural Resources Office
Environmental Services

Enclosures:

- ~~Attachment 1: Copies of consulting party correspondence~~
- ~~Attachment 2: Photograph Pages~~
- ~~Attachment 3: Proposed NRHP Boundary for the Barman Farm~~
- ~~Attachment 4: Overall Roundabout Footprint in Relation to the Barman Farm~~
- ~~Attachment 5: Planned Improvements in Proximity to the Barman Farm~~
- ~~Attachment 6: Proposed Roundabout Lighting Plan Sheet and Detail Sheet~~

These attachments have been removed for brevity. Copies are included in Appendix A and Appendix C.

Distribution List:

Invited Consulting Party Entities:

- Barman, Donald (property owner of the Barman Farm) – 7910 W 109th Ave, Crown Point, IN 46307

Accepted Consulting Party Entities:

- State Historic Preservation Officer
- Indiana Landmarks Northwest Field Office (bmiller@indianalandmarks.org)
- Pokagon Band of Potawatomi Indians

References

Ancestry

2019a 1860 United States Federal Census. Electronic document, https://search.ancestry.com/cgi-bin/sse.dll?indiv=1&dbid=7667&h=202257&tid=&pid=&usePUB=true&_phsrc=ZfN918&_phstart=succesSource, accessed September 2019.

2019b 1870 United States Federal Census. Electronic document, https://search.ancestry.com/cgi-bin/sse.dll?indiv=1&dbid=7163&h=20582088&tid=&pid=&usePUB=true&_phsrc=ZfN919&_phstart=succesSource, accessed September 2019.

2020a U.S. Federal Census 1840, Lake Indiana. Electronic Document, https://search.ancestry.com/cgi-bin/sse.dll?indiv=1&dbid=8057&h=2024928&tid=&pid=&queryId=38b76ec54aef78b46fadcabd66f1738a&usePUB=true&_phsrc=iWH389&_phstart=succesSource, accessed August 2020.

2020b U.S. Find a Grave. Richard Church III born 1775, died 1847. <https://www.findagrave.com/memorial/60649283>, accessed August 2020.

Ball, T.H.

1873 *Lake County, Indiana, from 1834 to 1872*. J.W. Goodspeed, Chicago.

Barman, Don

2020 Personal Communication from Don Barman, current owner of the John Barman Farm (IHSSI No. 089-565-75008), to Veronica Parsell, Cardno, Inc., on July 28, 2020.

Biggio, Elizabet

2018 Historic Property Report Des. No. 1601158. Butler Fairman & Seufert.

Bureau of Land Management Land Patent

1843 John Church assigne for Richard Church. Electronic document, https://glorerecords.blm.gov/details/patent/default_pf.aspx?accession=IN1850_330&docClass=STA, accessed August 2020

Esri

2009a World Imagery Wayback, 2018. -87.42128, 41.43150. Electronic document, <https://livingatlas.arcgis.com/wayback/?ext=-87.44120,41.41659,-87.42128,41.43150&active=4756>, accessed December 2020.

2009b World Imagery Wayback, 2019. -87.42128, 41.43150. Electronic document, <https://livingatlas.arcgis.com/wayback/?ext=-87.44120,41.41659,-87.42128,41.43150&active=4756>, accessed December 2020.

Find a Grave

2019 Johann Barman. Electronic document, <https://www.findagrave.com/memorial/123642818>, accessed August 2019

2020 Richard Church III born 1775, died 1847. <https://www.findagrave.com/memorial/60649283>, accessed August 2020.

Hardesty, H.H.

1876 *Hardesty's Sectional Map of Lake County, Indiana*. Copy available at the Indiana State Library, Indianapolis.

Historic Landmarks Foundation of Indiana (HLFI)

1996 *Lake County Interim Report: Indiana Historic Sites and Structures Inventory*. Historic Landmarks Foundation of Indiana, Indianapolis.

Howat, William F.

1915 *A Standard History of Lake County, Indiana and the Calumet Region*. The Lewis Publishing Company, Chicago.

Indiana Department of Natural Resources-Division of Historic Preservation and Archaeology [IDNR-DHPA]

2007 State Historic Architectural and Archaeological Research Database (SHAARD). Electronic document, <https://secure.in.gov/apps/dnr/shaard/welcome.html>, accessed August 2020.

Noble, Allen G., and Hubert G.H. Wilhelm

1995 *Barns of the Midwest*. Ohio University Press, Athens.

Robinson, Solon

1840 *Descriptive map of unsold lands near the head of Lake Michigan; embracing part of Porter and all of Lake County*. Indiana State Library, Indianapolis, Indiana.

Steele and Draper

1906 *Map of Lake County Indiana*. Spiceland, Indiana.

Thompson, Dave O., and William L. Madigan

1966 *One Hundred and Fifty Years of Indiana Agriculture*. Indiana Sesquicentennial Commission. Purdue University.

The Times [Munster, Indiana]

1910 Suicide. Electronic Document.

<https://www.newspapers.com/image/304639172/?terms=frank%2Bbarman>, accessed September 2019.

U.S. Federal Census

1840 Lake Indiana. Electronic Document, https://search.ancestry.com/cgi-bin/sse.dll?indiv=1&dbid=8057&h=2024928&tid=&pid=&queryId=38b76ec54aef78b46fadcabd66f1738a&usePUB=true&_phsrc=iWH389&_phstart=successSource, accessed August 2020.

U.S. Find a Grave

2020 Richard Church III born 1775, died 1847. <https://www.findagrave.com/memorial/60649283>, accessed August 2020.

Veronica Parsell

From: Veronica Parsell
Sent: Friday, February 19, 2021 12:17 PM
To: 'bmiller@indianalandmarks.org'
Cc: 'Alexander, Kelyn'; Branigin, Susan; Miller, Shaun (INDOT); Coon, Matthew (mcoon@indot.IN.gov); Kumar, Anuradha; CJ Cunningham
Subject: FHWA Project: Des. No. 1700022; Interim Effects Letter, US 231 Intersection Improvement Project in Lake County, Indiana

Des. No.: 1700022

Project Description: US 231 Intersection Improvement Project

Location: US 231 & Cline Avenue in Hanover and Center Townships, Lake County, Indiana

The Indiana Department of Transportation, with funding from the Federal Highway Administration, proposes to proceed with the US 231 Intersection Improvement Project in Lake County, Indiana (Des. No. 1700022). The Section 106 Early Coordination Letter for this project was originally distributed on July 19, 2019. In addition, a letter distributed on April 30, 2020 notified consulting parties that a historic property report and archaeology report (Tribes only) were available for review and comment.

As part of Section 106 of the National Historic Preservation Act, an interim effects letter has been prepared and is ready for review and comment by consulting parties.

Please review this documentation located in IN SCOPE at <http://erms.indot.in.gov/Section106Documents/> (the Des. No. is the most efficient search term, once in IN SCOPE), and respond with any comments that you may have. If a hard copy of the materials is needed, please respond to this email with your request as soon as you can.

Consulting parties have thirty (30) calendar days from receipt of this information to review and provide comment. Tribal consulting parties may enter the process at any time and are encouraged to respond to this notification with any comments or concerns at their earliest convenience.

Tribal contacts may contact Shaun Miller at smiller@indot.in.gov or 317-416-0876 or Kari Carmany-George at FHWA at K.CarmanyGeorge@dot.gov or 317-226-5629.

Thank you in advance for your input,

Veronica Parsell MA, RPA

PROJECT ARCHAEOLOGIST | PRINCIPAL INVESTIGATOR
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CONNECT WITH CARDNO



Veronica Parsell

From: Alexander, Kelyn

Sent: Friday, February 19, 2021 1:19 PM

To: Matthew.Bussler@pokagonband-nsn.gov

Cc: Miller, Shaun (INDOT) <smiller@indot.IN.gov>; Carmany-George, Karstin (FHWA) <k.carmanygeorge@dot.gov>; Coon, Matthew <mcoon@indot.IN.gov>; Grylewicz, Michael J <MGrylewicz@indot.IN.gov>

Subject: FHWA Project: Des. No. 1700022; Interim Effects Letter, US 231 Intersection Improvement Project in Lake County, Indiana

Des. No.: 1700022

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Thank you in advance for your input,

Kelyn Alexander

Historian

Cultural Resources Office

Environmental Services

100 N. Senate Ave., Room N758-ES

Indianapolis, IN 46204

Office: (317) 519-7759

Remote: 8am-4pm

Email: kalexander3@indot.in.gov

*****Please note, mailing address and phone number have been updated***

*****Link to the CRO-Public Web Map App can be found here***



INDIANA LANDMARKS

Northwest Field Office

541 South Lake Street, Gary, IN 46403

219 947 2657 / 800 450 4534 / www.indianalandmarks.org

March 8, 2021

Veronica Parsell
Senior Project Scientist/Archaeologist
Cardno
3901 Industrial Boulevard
Indianapolis, IN 46254

RE: Des. No. 1700022; US 231 Intersection Improvement Project in Hanover and Center Township, Lake County, Indiana

Dear Ms. Parsell,

I am pleased to see additional analysis was conducted on the John Barman Farm that determined National Register of Historic Places (NRHP) eligibility. I was also pleasantly surprised to learn about the history of the c. 1843 English barn and its individual eligibility for listing to the NRHP under Criterion C.

After review of the preliminary assessment of effects and the redesign of the project to avoid directly impacting resources within the proposed NRHP boundaries of the John Barman Farm, I concur with the finding of No Adverse Effect.

If you have any questions please feel free to contact me by phone or email at (219) 947-2657 or bmiller@indianalandmarks.org.

Sincerely,

A handwritten signature in dark ink, appearing to read "Brad Miller".

Brad Miller, Director
Northwest Field Office

Veronica Parsell

From: Veronica Parsell
Sent: Monday, March 8, 2021 11:47 AM
To: Alexander, Kelyn
Cc: Branigin, Susan; Miller, Shaun (INDOT); Kumar, Anuradha; CJ Cunningham
Subject: Des. No. 1700022, US 231 Intersection Improvement, CP responses
Attachments: US 231 Intersection Improvement - Response Letter 03082021.pdf

Hi Kelyn,

I wanted to send you an update on two consulting party responses that I received today for the above-referenced project. The first is from Indiana Landmarks. Their letter is attached.

The second came from Mr. Don Barman, the property owner. He called me this morning and accepted consulting party status for the project. He asked to stay informed on the project as it moves forward. He also asked that his son, Leonard Barman, be included on correspondence. When I asked about contact information for Leonard, Mr. Barman indicated that responses can still be mailed to his house, but he would like the correspondence to be addressed to himself and Leonard.

Mr. Barman provided some additional context/background to the information we included in our letter.

- He indicated that the Reeder Farm, which we used as a comparative property, was owned by his aunt and uncle (his dad's sister owned the Reeder Farm).
- No one in his family was aware of Sophia, one of the daughters of John and Catherine Barman. Mr. Barman assumes she died as a child. He was appreciative to learn about Sophia.
- Mr. Barman indicated that Frank Barman gave each kid 40 acres of agricultural land and 10 acres of woods when they grew up. Mr. Barman still owns the 10 acres of woods that Frank gave to him.
- Finally, Mr. Barman indicated that John Barman arrived in 1852 and purchased 400 acres, including the farmstead, for \$1600.

Mr. Barman did not have any specific comments about the effects of the project to his property. He was appreciative of the work completed to identify his property as NRHP-eligible, and I pointed out to him that the engineers had re-designed the project in an effort to avoid adversely affecting his property. He seemed to understand this and did not have any comments.

Mr. Barman's one concern regarding the project is about drainage. He indicated both that he wants to know about the drainage plans for the project, and that it is his biggest concern for the project. He mentioned that in 2008, there was work done for potential turn lanes at the intersection. Mr. Barman would like the drainage plans that were worked out in 2008 for the turn lane project to be followed for this project. He said he may still have a copy of these plans if INDOT does not.

Mr. Barman also mentioned that if additional elevation measurements are needed on his property, now is a good time to come and get them, as crops are down. He just asked that people knock on his door to let him know that they are there and what they'll be doing.

Finally, Mr. Barman mentioned that he is in communication with Senator Rick Niemeyer about the project, as well as INDOT Commissioner Joe McGuinness. He said that Mr. McGuinness indicated to him that the project will be moving forward, and Mr. Barman seemed more resigned to this during my call with him today than when I met with him previously. He did mention that any public meeting(s) for the project will be heavily attended, and that most people in the community are against the project.

Thanks,
Veronica

Veronica Parsell MA, RPA
PROJECT ARCHAEOLOGIST | PRINCIPAL INVESTIGATOR
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March 15, 2021

Veronica Parsell
Senior Project Scientist/Archaeologist
Cardno, Inc.
3901 Industrial Boulevard
Indianapolis, Indiana 46254

Federal Agency: Indiana Department of Transportation (“INDOT”),
on behalf of Federal Highway Administration, Indiana Division (“FHWA”)

Re: Effects letter for the US 231 Intersection Improvement Project at Cline Avenue (construction of a roundabout), located west of the City of Crown Point, in Hanover and Center townships of Lake County, Indiana (Des. No. 1700022; DHPA No. 24150)

Dear Ms. Parsell:

Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. § 306108), 36 C.F.R. Part 800, and the “Programmatic Agreement (PA) Among the Federal Highway Administration, the Indiana Department of Transportation, the Advisory Council on Historic Preservation and the Indiana State Historic Preservation Officer Regarding the Implementation of the Federal Aid Highway Program In the State of Indiana,” the staff of the Indiana State Historic Preservation Officer (“Indiana SHPO”) has reviewed your February 19, 2021 submission, containing the assessment of effects letter for the aforementioned project.

In addition to INDOT’s February 19 effects letter, we also acknowledge the inclusion of correspondence from Indiana Landmarks dated June 10 regarding the potential eligibility of the John Barman Farm (Indiana Historic Sites and Structures Inventory No. 089-565-75008) on US 231/West 109th Avenue near the northeastern quadrant of the proposed project. Thank you for providing a context of agriculture in Lake County with a history of the property, a comparative analysis of farmsteads extant elsewhere in the county, and a deeper examination of eligibility for the National Register of Historic Places (“NRHP”).

After reviewing the NRHP analysis, we agree with the effects letter that the John Barman Farm, as a collection of mid-nineteenth thru early-twentieth century farm buildings retains integrity and is eligible for the NRHP under Criterion A and C for agriculture and architecture.

We appreciate that the project has been redesigned slightly so as to minimize potential effects to the John Barman Farm. We note that no right-of-way will be needed from the boundary of the historic property, and road work is redesigned to not require regrading within the property boundaries. While there may be some visual effects as a result of the construction of the roundabout, the intersection will be shifted slightly to the west away from the farmstead. Thus, we agree with the effects letter that the project as proposed will not adversely affect the John Barman farm or its eligibility for inclusion in the NRHP.

As previously indicated, based on the submitted information and the documentation available to the staff of the Indiana SHPO, we have not identified any currently known archaeological resources listed in or eligible for inclusion in the NRHP within the proposed project area, and it is our opinion that no further archaeological investigations appear necessary at the proposed project area.

Additionally, there is insufficient information regarding archaeological sites 12-La-0727 and 12-La-0728 (both of which were identified during these archaeological investigations) to determine whether they are eligible for inclusion in the NRHP. However, we concur with the opinion of the archaeologist, as expressed in the Phase Ia archaeological records review and field

Veronica Parsell
March 15, 2021
Page 2

reconnaissance survey report (Parsell, 02/05/2020, that the portions of sites 12-La-0727 and 12-La-0728 that lie within the proposed project area are unlikely to yield important archaeological data; and that no further archaeological investigations of these portions of sites 12-La-0727 and 12-La-0728 appear necessary. The portions of sites 12-La-0727 and 12-La-0728 that lie outside the proposed project area should be clearly marked and must be avoided by all ground-disturbing project activities. If avoidance is not feasible, then a plan for subsurface archaeological investigations must be submitted to the DHPA for review and comment. Any further archaeological investigations must be done in accordance with the "Secretary of the Interior's Standards and guidelines for Archeology and Historic Preservation" (48 F.R. 44716).

If any prehistoric or historic archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and Indiana Code 14-21-1-29) requires that the discovery be reported to the Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology within two (2) business days. In that event, please call (317) 232-1646. Be advised that adherence to Indiana Code 14-21-1-27 and Indiana Code 14-21-1-29 does not obviate the need to adhere to applicable federal statutes and regulations, including but not limited to 36 C.F.R. Part 800.

The Indiana SHPO staff's archaeological reviewer for this project is Wade T. Tharp, and the structures reviewer is Danielle Kauffmann. However, if you have a question about the Section 106 process, please contact initially the INDOT Cultural Resources staff members who are assigned to this project.

In all future correspondence about the US 231 Intersection Improvement Project at Cline Avenue, in Hanover and Center townships of Lake County (Des. No. 1700022), please refer to DHPA No. 24150.

Very truly yours,



Beth K. McCord
Deputy State Historic Preservation Officer

BKM:DMK:dmk

emc: Kari Carmany-George, FHWA
Anuradha Kumar, INDOT
Shaun Miller, INDOT
Susan Branigin, INDOT
Kelyn Alexander, INDOT
Veronica Parsell, Cardno Inc.
Pokagon Band of Potawatomi Indians
Brad Miller, Indiana Landmarks, Northwest Field Office
Wade T. Tharp, DNR-DHPA
Danielle Kauffmann, DNR-DHPA



Pokégnek Bodéwadmik
POKAGON BAND OF POTAWATOMI
LANGUAGE & CULTURE

03/19/2021

Shaun Miller
INDOT
317-416-0876
smiller@indot.in.gov

FHWA Project Des. No. 1700022

Dear Responsible Party:

Migweth for contacting me regarding these projects. As THPO, I am responsible for handling Section 106 Consultations on behalf of the tribe. I am writing to inform you that after reviewing the details for the project referenced above, I have made the determination that there will be **No Historic Properties in Area of Potential Effects (APE)** significant to the Pokagon Band of Potawatomi Indians. However, if any archaeological resources are uncovered during this undertaking, please stop work and contact me immediately. Should you have any other questions, please don't hesitate to contact me at your earliest convenience.

Sincerely,

A handwritten signature in black ink that reads "Matthew Bussler".

Matthew J.N. Bussler
Tribal Historic Preservation Officer
Pokagon Band of Potawatomi Indians
Office: (269) 462-4316
Cell: (269) 519-0838
Matthew.Bussler@Pokagonband-nsn.gov

*** Proof of Publication ***

State of Indiana)
) ss:
Lake County)

Personally appeared before me, a notary public in and for said county and state, the undersigned Nicole Muscar who, being duly sworn, says that She/he is Legal Clerk of the Northwest Indiana Times newspaper of general circulation printed and published in the English language in the Town of Munster in state and county afore-said, and that the printed matter attached hereto is a true copy, which was duly published in said paper for 1 time(s), the date(s) of publication being as follows:

June 15, 2021

Cardno / LEGALS

Benjamin Mannies
3901 INDUSTRIAL BLVD.
INDIANAPOLIS IN 46254

ORDER NUMBER 72130

The undersigned further states that the Northwest Indiana Times newspaper maintains an Internet website, which is located at www.nwi.com website and that a copy of the above referenced printed matter was posted on such website on the date(s) of publication set forth above.

Nicole Muscari, Legal Clerk

By: Mary Ann Weaver

Subscribed and sworn to before me this 15 day of June, 2021

Dawn Renee Heili
Notary Public

My commission expires:



Section: Legals

Category: 198 Legal - Lake County

PUBLISHED ON: 06/15/2021

PUBLIC NOTICE
Des. No. 1700022

The Indiana Department of Transportation (INDOT) is planning to undertake an intersection improvement project, funded in part by the Federal Highway Administration. The project is located at the intersection of US 231 and Cline Avenue in Lake County, Indiana. Under the preferred alternative, the proposed project would involve reconstructing the intersection as a roundabout. The project is needed because the existing intersection lacks turn lanes on the approaches, which leads to vehicle queue delays, left-turn crashes, and rear-end crashes. The project would eliminate left-turn crashes, since the roundabout would remove left turning movements. It would also decrease the amount of rear-end crashes, with the reduction of vehicle-queue lengths (delays), and with improved markings and signage required in advance of the roundabout. The current design includes a two-lane roundabout. It is expected to require approximately 10.4 acres of permanent right-of-way.

Properties listed in or eligible for the National Register of Historic Places (NRHP) located within the Area of Potential Effects (APE) include the John Barman Farm. The proposed action impacts properties listed in or eligible for the NRHP. The Indiana Department of Transportation (INDOT), on behalf of the FHWA, has issued a "No Adverse Effect" finding for the project because the project will not diminish the integrity of the characteristics that qualify the historic property within the APE for inclusion in the NRHP. In accordance with the National Historic Preservation Act, the views of the public are being sought regarding the effect of the proposed project on the historic elements as per 36 CFR 800.2(d), 800.3(e) and 800.6(a)(4). Pursuant to 36 CFR 800.4(d)(2), the documentation specified in 36 CFR 800.11(e) is available for inspection in Cardno's Indianapolis office. Additionally, this documentation can be viewed electronically by accessing INDOT's Section 106 document posting website IN SCOPE at <http://ems.indot.in.gov/Section106Documents>.

This documentation serves as the basis for the "No Adverse Effect" finding. The views of the public on this effect finding are being sought. Please reply with any comments to Veronica Parsell, Cardno, 3901 Industrial Blvd, Indianapolis, IN 46254, 317-388-1982 (phone), 317-388-1986 (fax), veronica.parsell@cardno.com no later than July 15th, 2021.

In accordance with the "Americans with Disabilities Act", if you have a disability for which INDOT needs to provide accessibility to the document(s) such as interpreters or readers, please contact Michael Grylewicz, 219-325-7539, MGrylewicz@indot.IN.gov, 6/15-72130-hspaxlp

TOTAL AD COST: 39.14

FILED ON: 6/15/2021

See table of legal rates in the applicable State Board of Accounts Bulletin

Claim No. _____ Warrant No. _____

IN FAVOR OF

\$ _____

ON ACCOUNT OF APPROPRIATION FOR
The Times Media Company
601 W. 45th Avenue, Munster, IN 46321

Appropriation No. _____

ALLOWED _____

IN THE SUM OF \$ _____

I have examined the within claim and hereby certify as follows:

That it is in proper form.

That it is duly authenticated as required by law.

That it is based upon statutory authority.

That it is apparently correct
 incorrect

I certify that the within claim is true and correct; that the services there in itemized and for which charge is made were ordered by me and were necessary to the public business

Division of Historic Preservation & Archaeology · 402 W. Washington Street, W274 · Indianapolis, IN 46204-2739
Phone 317-232-1646 · Fax 317-232-0693 · dhpa@dnr.IN.gov · www.IN.gov/dnr/historic



July 2, 2021

Veronica Parsell
Senior Project Scientist/Archaeologist
Cardno, Inc.
3901 Industrial Boulevard
Indianapolis, Indiana 46254

Federal Agency: Indiana Department of Transportation (“INDOT”),
on behalf of Federal Highway Administration, Indiana Division (“FHWA”)

Re: Indiana Department of Transportation’s finding of “no adverse effect” on behalf of the Federal Highway Administration for the US 231 Intersection Improvement Project at Cline Avenue (construction of a roundabout), located west of the City of Crown Point, in Hanover and Center townships of Lake County, Indiana (Des. No. 1700022; DHPA No. 24150)

Dear Ms. Parsell:

Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. § 306108), 36 C.F.R. Part 800, and the “Programmatic Agreement (PA) Among the Federal Highway Administration, the Indiana Department of Transportation, the Advisory Council on Historic Preservation and the Indiana State Historic Preservation Officer Regarding the Implementation of the Federal Aid Highway Program In the State of Indiana,” the staff of the Indiana State Historic Preservation Officer (“Indiana SHPO”) has reviewed your June 9, 2021 submission, which enclosed INDOT’s finding and supporting documentation for this project, received by our office the same date.

We note correspondence from consulting party Indiana Landmarks indicating their satisfaction regarding the eligibility of the John Barman Farm for the National Register of Historic Places (“NRHP”) and that they also agree to a no adverse effect finding for this project. We also note correspondence from consulting party and property owner Mr. Don Barman regarding the history of his property, which was determined eligible for inclusion in the NRHP. We wish to acknowledge that while he did not have any comments regarding potential adverse effects to his NRHP-eligible property, he did indicate that many in the community are against the project as a whole.

As there is no other consulting party input regarding potential impacts to historic properties, we concur with INDOT’s June 3, 2021 Section 106 finding of “No Adverse Effect” on behalf of FHWA for this federal undertaking.

If any prehistoric or historic archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and Indiana Code 14-21-1-29) requires that the discovery be reported to the Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology within two (2) business days. In that event, please call (317) 232-1646. Be advised that adherence to Indiana Code 14-21-1-27 and Indiana Code 14-21-1-29 does not obviate the need to adhere to applicable federal statutes and regulations, including but not limited to 36 C.F.R. Part 800.

The Indiana SHPO staff’s archaeological reviewer for this project is Wade T. Tharp, and the structures reviewer is Danielle Kauffmann. However, if you have a question about the Section 106 process, please contact initially the INDOT Cultural Resources staff members who are assigned to this project.

Veronica Parsell
July 2, 2021
Page 2

In all future correspondence about the US 231 Intersection Improvement Project at Cline Avenue, in Hanover and Center townships of Lake County (Des. No. 1700022), please refer to DHPA No. 24150.

Very truly yours,



Beth K. McCord
Deputy State Historic Preservation Officer

BKM:DMK:dmk

emc: Kari Carmany-George, FHWA
Anuradha Kumar, INDOT
Shaun Miller, INDOT
Susan Branigin, INDOT
Kelyn Alexander, INDOT
Veronica Parsell, Cardno Inc.
Pokagon Band of Potawatomi Indians
Brad Miller, Indiana Landmarks, Northwest Field Office
Wade T. Tharp, DNR-DHPA
Danielle Kauffmann, DNR-DHPA

APPENDIX E

Hazardous Materials



INDIANA DEPARTMENT OF TRANSPORTATION

Driving Indiana's Economic Growth

100 North Senate Avenue
Room N642
Indianapolis, Indiana 46204-2216 (317) 232-5348 FAX: (317) 233-4929

Eric Holcomb, Governor
Joe McGuinness, Commissioner

Date: May 13, 2020

To: Site Assessment & Management (SAM)
Environmental Policy Office – Environmental Services Division
Indiana Department of Transportation
100 N Senate Avenue, Room N642
Indianapolis, IN 46204

From: C.J. Cunningham
The Troyer Group (on behalf of INDOT, LaPorte District)
550 Union Street
Mishawaka, IN
cjc@troyergroup.com

Re: RED FLAG INVESTIGATION
DES #1700022, State Project
Intersection Improvement, Roundabout
US 231 at Cline Ave, 2.0 Miles East of US 41
Lake County, Indiana

PROJECT DESCRIPTION

Brief Description of Project:

The project, sponsored by INDOT LaPorte District, is located on US 231 at the intersection of Cline Ave. It is 2.0 miles east of US 41 in Lake County. The project area is located at the intersection of two (2), two-lane roads, which run east to west (U.S. 231/ West 109th Avenue) and north to south (Cline Avenue). The intersection features stop lights and is surrounded by farmland. The existing intersection lacks turn lanes on the approaches leading to delays, left-turn crashes, and rear-end crashes. There is concern that if no action is taken that the left-turn and rear-end crashes will continue and the safety issues and concerns would not be addressed.

The project proposes to reconstruct the intersection as a roundabout, which would eliminate left-turn crashes since the roundabout would remove left-turning movements. The scope of work will also include a new storm sewer that will collect drainage runoff to be emptied into a drainage basin in the intersection's northwest or southwest quadrant.

Bridge and/or Culvert Project: Yes No Structure # _____

If this is a bridge project, is the bridge Historical? Yes No , Select Non-Select

(Note: If the project involves a historical bridge, please include the bridge information in the Recommendations Section of the report).

Proposed right of way: Temporary # Acres 0.10 Permanent # Acres 3.2 Permanent

Type of excavation: Excavation work will be necessary for work related to the installation of the roundabout, up to a depth of 6-10 feet for the installation of a storm sewer.

Maintenance of traffic: Traffic will be maintained by way of detouring US 231. The preliminary detour route under consideration includes US 41, US 30, and SR 55. The official detour length will be approximately 16.9 miles, requiring an additional 9.4 miles of travel. No local detour has been evaluated for Cline Ave.

Work in waterway: Yes No Below ordinary high water mark: Yes No

State Project: LPA:

Any other factors influencing recommendations: N/A

INFRASTRUCTURE TABLE AND SUMMARY

| | | | |
|--|------------|-------------------------|------------|
| Infrastructure | | | |
| Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A: | | | |
| Religious Facilities | 1 | Recreational Facilities | N/A |
| Airports ¹ | N/A | Pipelines | 1 |
| Cemeteries | N/A | Railroads | N/A |
| Hospitals | N/A | Trails | N/A |
| Schools | 1 | Managed Lands | N/A |

¹In order to complete the required airport review, a review of public airports within 3.8 miles (20,000 feet) is required.

Explanation:

Religious Facilities – One (1) religious facility is located within the 0.5 mile search radius. Redeemer United Reformed Church is located 0.41 mile northwest of the project area. Coordination with Redeemer United Reformed Church will occur.

Schools – One (1) school is mapped within the 0.5 mile search radius. However, Crown Point Christian School is actually located 0.6 mile northwest of the project area. No impacts are expected.

Pipelines – One (1) pipeline segment is located within the 0.5 mile search radius. The Northern Indiana Public Service Co. pipeline segment is located within the project area. Coordination with INDOT Utilities and Railroads should occur.

WATER RESOURCES TABLE AND SUMMARY

| | | | |
|--|------------|-------------------------|------------|
| Water Resources | | | |
| Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A: | | | |
| NWI - Points | 1 | Canal Routes - Historic | N/A |
| Karst Springs | N/A | NWI - Wetlands | 8 |
| Canal Structures – Historic | N/A | Lakes | N/A |
| NPS NRI Listed | N/A | Floodplain - DFIRM | 3 |
| NWI-Lines | N/A | Cave Entrance Density | N/A |

| | | | |
|---|---|-----------------------|-----|
| IDEM 303d Listed Streams and Lakes (Impaired) | 2 | Sinkhole Areas | N/A |
| Rivers and Streams | 5 | Sinking-Stream Basins | N/A |

Explanation:

NWI – Points - One (1) NWI-Point is located within the 0.5 mile search radius. The NWI-Point is located 0.18 mile southwest of the project area. No impact is expected.

IDEM 303d Listed Streams and Lakes (Impaired) – Two (2) 303d Listed Streams and Lakes are located within the 0.5 mile search radius. The nearest 303d Listed Stream is located 0.44 mile northwest of the project area. No impact is expected.

Rivers and Streams – Five (5) River and stream segments are located within the 0.5 mile search radius. The nearest river and stream segment is located 0.42 mile east of the project area. No impact is expected.

NWI – Wetlands - Eight (8) wetlands are located within the 0.5 mile search radius. The nearest wetland polygon is located 0.16 mile southwest of the project area. No impact is expected.

Floodplain – DFIRM – Three (3) floodplain polygons are located within the 0.5 mile search radius. The nearest floodplain polygon is located 0.25 mile southeast of the project area. No impact is expected.

URBANIZED AREA BOUNDARY SUMMARY

Explanation:

This project lies on the boundaries of the Town of St. John MS4 and the Lake County MS4. Post construction Storm Water Quality Best Management Practices (BMPs) may need to be considered. An early coordination letter with topographic and aerial maps showing the project area should be sent to the St. John MS4 Coordinator at 10955 West 93rd Avenue St. John, IN 46373, and to the Lake County MS4 Coordinator at 2293 North Main Street, Crown Point, IN 46307.

MINING AND MINERAL EXPLORATION TABLE AND SUMMARY

| | | | |
|--|-----|---------------------|-----|
| Mining/Mineral Exploration | | | |
| Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A: | | | |
| Petroleum Wells | N/A | Mineral Resources | N/A |
| Mines – Surface | N/A | Mines – Underground | N/A |

Explanation:

There are no Mining and Mineral resources of concern in the project area.

HAZARDOUS MATERIAL CONCERNS TABLE AND SUMMARY

| | | | |
|--|-----|------------------------------|-----|
| Hazardous Material Concerns | | | |
| Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A: | | | |
| Superfund | N/A | Manufactured Gas Plant Sites | N/A |
| RCRA Generator/ TSD | N/A | Open Dump Waste Sites | N/A |

| | | | |
|--|-----|-----------------------------------|-----|
| RCRA Corrective Action Sites | N/A | Restricted Waste Sites | N/A |
| State Cleanup Sites | N/A | Waste Transfer Stations | N/A |
| Septage Waste Sites | N/A | Tire Waste Sites | N/A |
| Underground Storage Tank (UST) Sites | N/A | Confined Feeding Operations (CFO) | N/A |
| Voluntary Remediation Program | N/A | Brownfields | N/A |
| Construction Demolition Waste | N/A | Institutional Controls | N/A |
| Solid Waste Landfill | N/A | NPDES Facilities | 1 |
| Infectious/Medical Waste Sites | N/A | NPDES Pipe Locations | N/A |
| Leaking Underground Storage (LUST) Sites | N/A | Notice of Contamination Sites | N/A |

Explanation:

NPDES Facilities- One (1) NPDES Facility is located within the 0.5 mile search radius. The facility is located 0.39 mile west of the project area. No impacts are expected.

ECOLOGICAL INFORMATION SUMMARY

The Lake County listing of the Indiana Natural Heritage Data Center information on endangered, threatened, or rare (ETR) species and high quality natural communities is attached with ETR species highlighted. A preliminary review of the Indiana Natural Heritage Database by INDOT Environmental Services did not indicate the presence of ETR species. Coordination with USFWS and IDNR will occur.

A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to the most recent "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects."

RECOMMENDATIONS SECTION

Include recommendations from each section. If there are no recommendations, please indicate N/A:

INFRASTRUCTURE:

- One (1) religious facility is located 0.41 mile northwest of the project area. Coordination with Redeemer United Reformed Church will occur.
- The Northern Indiana Public Service Co. pipeline segment is located within the project area. Coordination with INDOT Utilities and Railroads should occur.

WATER RESOURCES: N/A

URBANIZED AREA BOUNDARY:

- This project lies on the boundaries of the Town of St. John MS4 and the Lake County MS4. Post construction Storm Water Quality BMPs may need to be considered. An early coordination letter with topographic and aerial maps showing the project area should be sent to the St. John MS4 Coordinator at 10955 West 93rd Avenue St. John, IN 46373, and to the Lake County MS4 Coordinator at 2293 North Main Street, Crown Point, IN 46307.

MINING/MINERAL EXPLORATION: N/A

HAZARDOUS MATERIAL CONCERNS: N/A

ECOLOGICAL INFORMATION:

- Coordination with USFWS an IDNR will occur. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to “Using the USFWS’s IPaC System for Listed Bat Consultation for INDOT Projects.”

Nicole Fohey-
Breting

Digitally signed by
Nicole Fohey-Breting
Date: 2020.05.13
11:24:53 -04'00'

INDOT Environmental Services concurrence:

_____(Signature)

Prepared by:

C.J. Cunningham

Manager - Environmental Services

Troyer Group

Graphics:

A map for each report section with a 0.5 mile search radius buffer around all project area(s) showing all items identified as possible items of concern is attached. If there is not a section map included, please change the YES to N/A:

SITE LOCATION: YES

INFRASTRUCTURE: YES

WATER RESOURCES: YES

URBANIZED AREA BOUNDARY: YES

MINING/MINERAL EXPLORATION: N/A

HAZARDOUS MATERIAL CONCERNS: YES